

SL-12 MC-223/1

Time: 00:12 CDT 149:05:12 CDT

5/19/73

PAO Skylab Control at 3 hours 12 minutes and 13 seconds Greenwich mean time. We have acquisition of signal again at Ascension. We are not expecting to hear from the crew at this point. But, we did come up to bring a correction to something said earlier. During our last pass at Vanguard on an earlier revolution shortly after 10:00 p.m. central daylight time today, a private conversation was requested by Commander, Pete Conrad. I mis-spoke earlier in saying that that request had come from the Pilot. It did come from Commander Pete Conrad. And he requested a private conversation with Center Director Chris Craft. This is the information given to us by spacecraft communicator Richard Truly. He indicated that the Center Director Christopher Craft, Deke Slayton, the head of the astronaut corps, and a Flight Director would be asked to participate in this private conversation. No time has yet been set for that private conversation, although some time during the evening it is expected that Flight Controllers will determine a time and send that up with details for the Commander on the teleprinter. So Pete Conrad had that request a little after 10:00 did not indicate the reason for the private conversation. But did say that it did not concern any kind of emergency. This is Skylab Control, we still have acquisition of signal at Ascension. Those temperatures are still hovering around 85 degrees. We don't expect any noticeable difference over night. Although they are coming down and may be several degrees lower in the morning. Both coolant loops are functioning properly at this time. Skylab Control at 13 minutes and 52 seconds after the hour, air-to-ground will still stay live.

END OF TAPE

SL 12 0 01 WH.1

SL-11 NC-224/1

Time: 01:00 CDT, 140100:00 GMT

2/29/73

PAC Skylab Control at 6 hours and 5 seconds Greenwich mean time. At the present time the spacecraft is on revolution number 210, a descending node over the Guam tracking station almost directly over Guam at this time, and it's passing to the southeast. And the spacecraft has had no additional problems. We've had no record of any changes. Temperatures continue to drop very, very slowly a fraction of a degree an hour. And we expect no further contact with the crew. We do not know, at this time, where the crew is sleeping. We do have a sleep monitor on board in the orbital workshop and that operates only when the crew is sleeping in the orbital workshop. We haven't gotten any data back yet that the medical people say is valid data so they don't have any indication that they are sleeping in the workshop. But it's possible that that equipment is not hooked up, so it's - right now it's not known for certain whether they're sleeping in the multiple docking adapter or not, although that is rather suspected right now. This is Skylab Control at one minute and four seconds after the hour.

END OF TAPE

MA 52 0 0 1 1 2

SL-11 MC-229/1

Time: 02:22 CDT 149:07:22 GET

5/29/73

PAO Skylab Control at 7 hours 22 minutes and 17 seconds. At the present time the spacecraft is traveling over the Soviet Union on revolution 211. It's traveling 23,087.6 feet per second. Has a maximum point at its altitude at 239.8 nautical miles, the low point of its altitude is 233.6 nautical miles. The crew is believed now to be sound asleep, although we have no medical data to confirm that. The crew - it is not known where the crew is sleeping. It's believed that they may be sleeping either in the multiple docking adapter or in the orbital workshop. There is equipment in the orbital workshop that allows us to monitor them medically as they are sleeping in their sleeping compartments, but that equipment may or may not be hooked up properly tonight. And, in any case we don't know whether they are in the multiple docking adapter or not. This is Skylab Control at 23 minutes and 17 seconds after the hour.

END OF TAPE

SL-11 NC226/1

Time: 03:02 CDT, 149:08:02 GMT

8/19/73

PAD Skylab Control at 3 hours 2 minutes and 6 seconds Greenwich mean time. At the present time the Skylab spacecraft is at the lowest point in its orbit, closest to the south pole and beginning its ascending node of the 212th revolution. At the present time in Mission Control they are doing some flight planning for tomorrow, trying to plan the electrical usage to keep power properly balanced between experiment and maintenance of various hardware on the spacecraft. The experiments tomorrow include the first major operations of ATM experiments. There will be two checkout periods with manned - during the first two revolutions - with a man on the ATM console and the multiple docking adapter, and that will begin normal operations of that Apollo telescope mount, the solar telescope at 17:55 Greenwich mean time, that's 11:55 central daylight time. At this time there will be a - both synoptic - which are direct full view of the Sun - experiments and also some study of structure of active regions. This will involve all of the major experiments on the solar telescope, including S052 S054, S055A, S056, S082A and 823, and the H-Alpha 1 experiment. H-Alpha 2 may also be used, that is a device used for pointing and it's entirely up to the crew to decide whether or not they wish to use that. During the day tomorrow the ATM experiment will be used both by - both in the manned mode with a man operating the solar telescope from the console, it will also be operated in the unattended mode with no one operating on the console, set up so that it can operate on its own. Later in the mission, near the end, there will be an EVA to retract - take film out of that ATM. That will be done - the film will be replaced at that time. So as the planning goes on here at Mission Control, the spacecraft continues to function properly. We've had no difficulties during the night. And this is Skylab Control at 4 minutes and 19 seconds after the hour.

END OF TAPE

SL-11 MC-227/1

Time: 04:00 EDT, 140:09:00 GMT
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PAG Skylab Control at 9 hours Greenwich mean time. At the present time the orbital workshop is traveling smoothly along its course on revolution number 212. Now passing over India as it heads towards the southeast end of the Indian Ocean. At the present time the spacecraft temperatures have come down a little bit below what they were earlier in the evening. The highest temperature reading now on any of the temperature transducers in the orbital workshop area is 90.0 degrees. The lowest temperature on any of those readings is 79.9 at a coolant loop. The highest temperature reading was at the - again at the ceiling of the experimental compartment. The median temperature in that orbital workshop is approximately 83 to 84 degrees. So it is cooling off although the rate of cooling is much slower than what we've seen earlier. This is to be expected as we get closer to that proper level of temperature. Pressure continues at an even 5 pounds per square inch. Oxygen content of the atmosphere is 73 percent right now. It varies from approximately 72 percent to 80 percent. At this time both the coolant loops are operating in an attempt to cool down the workshop. And they are working successfully, although there was a circuit breaker out on one of the pumps last night. They switched over to one of the other pumps available on that secondary coolant loop and that's operating properly. They will look into the problem of the first circuit breaker popping and we'll see what the problem is tomorrow morning. At this time there is consideration of an EREP pass possibly on day 6. That's under consideration, although there's no definite information on that yet. Tomorrow will be a day occupied with both medical experiments and the ATM experiments. They will complete setting up the ATM and there will be again performance of the MO92 and M171 experiments - that's the bicycle ergometer experiment and also the experiment of lower body negative pressure. This is Skylab Control at 2 minutes and 9 seconds after the hour.

END OF TAPE

SL-11 40-2-8/1

Time: 03:00 CDT 149:10:00 GMT

5/29/73

PAO Skylab Control at 10 hours Greenwich Mean time. At the present time the spacecraft is just about to begin on its 213th revolution about the Earth. This is the last revolution of the sequence and then it repeats the groundtracks beginning with groundtrack number 1. The 214th revolution will begin at exactly the point - or roughly at the point that the first launch took place and, as you know, the groundtrack now has slipped approximately 59 miles to the west of its original groundtrack. No difficulties have arisen so far on the Skylab in the overnight period. We expect to see the crew awakening in a little less than an hour. They'll be awakened - first call will come at about 30 seconds after 6 o'clock, first opportunity at Honeysuckle over the Australian coast. This is Skylab Control at 57 seconds after the hour.

END OF TAPE

SL-1X HQ229/1

Time: 05:35 a.m. CDT, 149:10:55 GMT

5/29/73

PAO Skylab Control at 10 hours 55 minutes and 3 seconds Greenwich mean time. The first wakeup call from spacecraft communicator Dr. William Thornton is expected to come just after 6 a.m. central daylight time as the Skylab space station comes within range of the Australian tracking station at Menzies Creek, just outside the capital city of Canberra in the rolling hills of southeastern Australia. Today's busy schedule is highlighted by the first operation of the solar telescope or ATM for Apollo telescope mount. After an extensive checkout of the equipment scheduled for 8 a.m. until about 10:30 a.m. central daylight time, Dr. Joseph Kerwin will sit at the control and display console for the ATM which is down in the multiple docking adapter. The ATM experiments, solar telescope experiments, will be operated both with a man at the console and also will be operated in the unattended mode. They are set up to operate automatically. Both those modes will be used today. The lower body negative pressure experiment will be performed for the second and third times today. This test with commander Pate Conrad as subject in the morning and Dr. Kerwin as subject in the afternoon is providing data on the redistribution of body fluids in a weightless environment. Yesterday Dr. Kerwin noted that Paul Weitz's calf measurement was 1/2 inch smaller than it had been on Earth and that it increased in size twice as much as had been the experience on Earth, when the atmosphere was pumped out of the negative pressure chamber. This lends support to earlier hypothesis that fluids move out of the legs and are distributed when gravity doesn't provide resistance to the flow of blood back toward the heart. Both Conrad and Kerwin will also exercise on the bicycle-like ergometer. Much of Paul Weitz's day will be spent testing and setting up the earth resources experimental equipment. Weitz will load film, check cameras, tape recorders and also check out the control panel located near the much larger ATM panel and the docking adapter at the forward end of the space station. The earth resources experiment equipment may get its first use if weather conditions remain good on Wednesday afternoon. The Wednesday overflight is planned to follow ground track number 20 which begins on the Pacific coast in southern Oregon, travels across Nevada, Utah, Arizona, New Mexico, Texas, the Gulf of Mexico, Central America, Columbia and ends in Brazil where the Sun becomes too low (that is below 20 degrees sun angle) for high quality photography. Flight planners have indicated that the crew should be sleeping tonight in their specially designed wall hung sleeping bags. And Dr. Kerwin should wear for the first time a sleep monitoring device so that medical personnel can gather information on

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Time: 03:35 a.m. GMT, 149:10:35 GMT

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sleeping patterns in space. Brain waves and eye movements are used to reveal seven stages of depth of sleeping. Temperatures in the orbital workshop have declined slightly over night. At the present time the highest reading is 89.0 degrees, that's in the scientific compartment on the ceiling and the lowest temperature at one of the inlet ducts is 79.4 degrees. Most of those temperatures are now reading approximately 83 degrees. There is a range there but most of them are around 83 degrees. So it'll be a busy day of experiments. During the night flight planners have been very busy in Mission Control attempting to balance the dozens of different requirements of experimenters and experiments, each experimenter listing his own requirements for time of day of operation, amount of time required, and the special conditions. They also have the problem, of course, of balancing the requirements for electrical power. There have been several plans introduced now to reduce requirements on use of heaters and so forth. None of these, of course, impact any experiments but originally it was thought that some of these things could be left out permanently. We expect to have acquisition of signal at Honeyauckle Creek in about 1 minute and 12 seconds and shortly after that we should hear a call from the spacecraft communicator. This is Skylab Control and we will stay alive for a call in approximately 1 minute.

PAO We've had acquisition of signal now at station and we should hear a call at any moment from spacecraft communicator.

CC Skylab Houston AOS for two minutes.
Gentlemen start your engines.

SC GARBLE commence ship's work.

PAO Skylab Control we have lost data and acquisition of signal at the Honeyauckle tracking station. We will not hear again from the crew although they did wakeup a few minutes ago. We won't hear from the crew until we reach the Texas-Corpus Christi tracking station and that will take place in a little under 28 minutes. This is Skylab Control at 6 minutes and 14 seconds after the hour.

END OF TAPE

SL-11 MC-230/1

Time: 06:32 a.m. CDT, 149:11:32 GMT

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PAO Skylab Control, Houston, at 11 hours 33 minutes Greenwich mean time. Coming up now on acquisition of Skylab through Texas. The crew aboard Skylab awakened during the pass over Honeysuckle. We'll stand by now and monitor any conversations which might develop over Texas and the States.

CC Skylab, Houston. AOS for 15 minutes.
SC 15 minutes?
CC That's affirm.
CC If the SPT is listening, we have a message for him.
SC He's strapping his foots into the body mass measuring device right now, and he's therefore listening. So ahead.

CC Oh. I wouldn't dare disturb a thing like that. But I'll read the message anyway.

SC Hey, Bill.

CC Yeah. Go.

SC We've got a question for the camera people. We've got some 35-millimeter film in the nycon we launched with. Whatever roll it was. And we apparently do not have the empty cassette. Now if we start swapping cassettes, I think everybody's going to get all fouled up. I'd like to propose that (garble), that we take that - when we change that film out, that we wrap it with several layers of this heavy silver foil tape we've got here, and kind of make it bowed cassette.

CC Copy that. And I'll confirm that's agreeable down here.

SC Okay.

CC Paul, can you take a ATM message at this time?

SC Say again, Houston.

CC Can you take an ATM message at this time?

SC Not right now, Bill. I'll give you a call in a minute.

CC Roger.

PAO Skylab Control, Houston; 11 hours 42 minutes Greenwich mean time. The crew aboard Skylab now awakened. The space station continuing in its statewide pass, presently under acquisition through Mila. Very little conversation - -

SC Yes, Bill, why don't you go ahead with the ATM message. I'll copy it down for Joe.

CC Okay. Prior to ATM checkout on panel 203, ATM C and D, coolant loop activation. ATM COOLANT PUMP A, switch on; run the loop continuously until further advised.

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SC Okay. And I ran that loop yesterday and changed the filter out (garble) A-2.

CC Okay. On the ATM schedule pad for 05149, change RL0000 D00 L400, change that to RL10800, U plus 400, R plus 400.

PAO That's CAP COM Bill Thornton reading numbers to Commander Pate Conrad aboard the Skylab. One of the first items to be done this morning by Spacecraft Commander Conrad is the onboard checkout of the Apollo telescope mount. That's what they're talking about now. We're at 11 hours 45 minutes Greenwich mean time, and this is Skylab Control, Houston.

SC Houston, SPT.

CC Go, SPT.

SC What's the GMT associated with that change on the ATM schedule pad.

CC Stand by.

END OF TAPE

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Time: 06:46 a.m. ZDT, 149:11:46 GMT
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CC: SPT, that's 14 43.
SC: Thank you.
CC: PLT, wrap the film as you described and
we'll get you a stowage location for it later.
SC: Okay.
SC: Bill, did you get to look at the data on
your (garble) decal?
CC: Yeah. We're going to have to repeat some
of that.
SC: Some of the logging or some of the do it?
CC: Say again.
SC: Repeat the logging or the operation?
CC: Repeat the operation.
SC: Okay. It looks pretty good to me except
for one data point which started at a momentum dump. I read
you those numbers anyway. And then the 900 gram point, which
I don't understand, ah, under 1 into 1 of waste management
compartment, I have no idea of what happened. Do you?
CC: No. It's just a catastrophic failure.
One of those things. Listen, we never did get the data down
on the M074. I was referring to M172.
SC: Oh. Yeah, okay. M074 according to Pete
late last night.
CC: Oh, okay. Thank you. Listen, we have one
more - before LOS - we have one more for you here. It's on
the - involves the S05 for high voltage. Do not enable image
dissector or high voltages. Hence, the image dissector switch
remains off.
SC: Hold it, Bill.
CC: (Garble)
SC: Okay, now go ahead. I have the copy (garble).
CC: Roga. This is S05 for high voltage. We
do not want the image dissector or the high voltages ENABLE.
Hence, the image dissector switch is off - remains off. Photo
multiplier enable switch remains off. And the pressure in the
canister is too high for safe operation at this time. We're
going LOS here in about 30 seconds. We'll -
SC: Are you still there?
CC: That's affirm.
SC: Okay, I just wanted to tell you that because
of the failure in the waste management SMMD, we're not weighing
faces at the moment.
CC: You're not. We copy that. Also, we'll
have you at Madrid at 11:54.
PAO: Skylab Control, Houston. We've had loss
of signal. The next station to acquire, Madrid, in some 3 min-
utes and 20 seconds. The last item discussed was the measuring
device used to measure various specimens. And which appeared
we had a failure yesterday in the one situated in the waste
management compartment. That's been CAP COM, Bill Thornton,
talking to Science Pilot, Joe Kerwin.

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Time: 06:46 a.m. CST, 11:46 GMT
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PAO Skylab Control, Houston. Less than a minute away now from acquisition through Madrid. Joe Kerwin, the science pilot, will be the crewmember involved in the Apollo telescope mount checkout. Pete Conrad earlier took the message from CAP COM, Bill Thornton, the various numbers and settings which will be used in the checkout. We're at 11 hours 54 minutes Greenwich mean time, continuing to monitor. This Skylab Control, Houston.

CC Skylab, Houston. AOS for 7 minutes.

CC Skylab, we're preparing to dump the voice recorder at this time.

SC Roger.

CC Skylab, Houston. We'll be LOS in about 30 seconds. We'll see you at Carnarvon. And the urine chiller number 1 temp, it increased about 56 degrees during the night. But we note that this has been dropping for the last few minutes.

SC The what had increased, Bill?

CC The urine chiller number 1 temperature.

SC Okay. I believe that was my fault, Bill.

When I got up this morning, I found the blower running.

CC We copy.

SC And I think I left it on in the night - middle of the night last night (garble).

CC Thank you.

PAO Skylab Control, Houston; at 12 hours 3 minutes Greenwich mean time. We've just had loss of signal through Madrid. The next station to acquire Skylab is Carnarvon in some 27-1/2 minutes. This is Skylab Control, Houston.

END OF TAPE

SL-1F MC-232/1

Time: 07:29 a.m. CDT, 149:12:29 GMT
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PAO Skylab Control, Houston, at 12 hours
30 minutes Greenwich mean time. Less than a minute away
now from acquisition through Carnarvon of Skylab, now on its
214th revolution. Meanwhile, we're looking at temperatures
inside the workshop that read as follows: ambient tempera-
ture in the cabin 88 degrees Fahrenheit, the food locker
temperature's 90.5 degrees Fahrenheit, and the film vault
88 degrees Fahrenheit. At this point, we don't know, with
certainty, where the crew spent the night during their
sleep period. However, it is felt certain that it was not
in the command module. Coming up now on acquisition through
Carnarvon. Standing by, this is Skylab Control, Houston.

CC Skylab, Houston. AOS 3 minutes.

CC LOS in 1 minute. AOS at 12:41 Honeysuckle.

PAO Skylab Control, Houston, at 12 hours
35 minutes Greenwich mean time. We've had loss of signal
through Carnarvon. Honeysuckle will acquire in approximately
6 minutes.

PAO Skylab Control, Houston, at 12 hours
40 minutes Greenwich mean time. Less than a minute away
now from acquisition of Skylab through Honeysuckle. We'll
stand by.

PAO This should be a very short pass, a bit
over 1 minute in duration.

CC Skylab, Houston through Honeysuckle
1 minute.

SC I finally worked the (garble).

CC Roger.

SC We seem to be pretty well on the time
line, and we're just listening to a little good country music.

CC Well, didn't hear that. There's a lot
of music in the background. But, in any event, we're about
15 seconds from LOS; Texas at 11.

SC I said we were on the time line, and
we were just listening to a little country music.

CC Roger. It sounds great.

PAO Skylab Control, Houston, at 12 hours
43 minutes Greenwich mean time. We've had loss of signal
through Honeysuckle. The next station to acquire will be
Texas in some 28 minutes. Meanwhile, in the Mission Control
Center, we've had a changeover, and CAP COM Astronaut
Henry Hartfield now filling that post. You heard him
speak briefly to Pete Conrad aboard Skylab, who reported they
were right on the time line and listening to some country music,
which we could hear in the background. When we pick up again
over Texas, it's quite likely that the earth resources experiment
package, which - the activation of which is scheduled for
today - the activation very probably will have started. This

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involves Commander Conrad and Pilot Paul Weitz. Meanwhile,
at the same time, Science Pilot Joe Kerwin will be involved
in the Apollo telescope mount checkout. We're at 12 hours
44 minutes Greenwich mean time, and this is Skylab Control,
Houston.

END OF TAPE

SL-11 MC-233/1

Time: 03:09 a.m. CDT, 149:13:09 GMT

5/29/73

PAO Skylab Control, Houston, at 13 hours
10 minutes Greenwich mean time. Standing by now for acquisition of Skylab through Texas. We presently show Skylab in an orbit of 239.3 nautical miles by 233.7 nautical miles. Standing by now for the callup from CAP COM, Henry Hartsfield.

CC Skylab, Houston. Stateside for 16 minutes.
SC Hello, Houston. We've got (garble) for an
(garble) alpha.

CC Roger; copy.
SC Just started the checkout, Houston, and
I've advised H-alpha TV turn on, page AVS-2.

SC Houston, CDR.
CC Go ahead.
SC You'll be happy to know that you got good
EREF tapes. One through four are perfect. Could you tell me
the reason why you think seven is bad. I haven't looked at
it, but I marked it as bad - per pad.

CC Okay, let me get an answer on that, Pete.
SC Okay. Because the ones through four are
perfect. They look just as good as anything I've seen, and
they have nothing like the pictures that were shown of heated
tape.

SC Hey, Houston; PLT.
CC Go ahead.
SC I'm starting off behind him and doing a
list of this film-threading jazz. It is completely screwed
up. When I get done, I'll either tell you or put on tape
what our configuration is and where we stand. And, also, I
think it's unreasonable to expect that the pads that were
laid on today - threading the cameras and activating all the
others - to be done during the normal postsleep period.

CC Roger; copy.
SC Houston, SPT.
CC Go ahead, SPT.
SC Okay, (static) it's a beautiful picture.
H-alpha 1 of one is very good, too. It's got excellent detail.
However, in the (garble), you notice a continuous jiggling.
That's - I'll time quantitate it for you later, but it's a number
(garble) second (garble) 1-second cycle; it's moving.

CC Roger; copy.
CC Yeah. Yeah, he said he was having problems.
CC I got FLIGHT.
CC Go ahead, (garble).
CC Yeah, it's to get him a time. There's
not enough time there to do it right. Yeah. Yeah. Go ahead.
You'll have to speak up. I can't read you at all.

SL-II NC234/1

Time: 08:28 a.m. CDT, 149:13:28 GMT

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PAO Skylab Control, Houston. We've had loss of signal. Madrid is the next station to acquire in approximately 4 minutes.

PAO Skylab Control, Houston; 13 hours 32 minutes Greenwich mean time. Standing by now for acquisition with Skylab through Madrid.

CC Skylab, Houston, through Madrid, 9 minutes.

SC Hello, Houston.

SC Hi Houston. CDR, both tape recorders are loaded, just about to check them out.

CC Roger. Copy.

SC Houston you want me to tell you now in real time what our 16 millimeter configuration is or put it on tape.

CC That's your choice, Paul, which ever is easiest.

SC Okay, if you'll get out the film strips and let me go GARBLE.

SC Houston, SPT.

CC Go ahead.

SPT The XUV monitor in main position number 7 has just barely began to detect GARBLE and normal background features the - one feels that one needs about four more gain positions to do the job properly. When can I show you these.

CC We'll have to schedule that up, Joe, we'll let you know.

SPT Okay.

CC And PLT we've got the film prep pad.

PLT Okay. Here's what it is right now. The first line on transporter 02 is as advertised on the pad. The second line, now transporter A1 is bad and was reported as such by Dr - by the PS what's his name, yesterday as is takeup to fit MT01, therefore, the second line now reads transporter 03 and the takeup reel is MT10. That's MT10. And the third line, everything is as advertised except the takeup reel is MT11 that's 11. The redoing of panel 11 was because the straps aren't marked Hank, and I figured it didn't make any difference - I took the first two empty reels I came to.

CC Roger. Copy.

PLT And also for information, GARBLE GARBLE they all threaded beautifully this morning. I don't know if that procedure on pulling the film - everything you did must have worked - but no sweat.

CC Okay. That's good news.

SC Houston, the CDR wants to know if you're going to send him an S009 pad.

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SC GARBLE delay this Houston.
CC Skylab, Houston for the CDR. You're
private comm request is set up on Honeysuckle. Next pass at
18.

SC GARBLE 18.
CC Did you copy that, Bill?
CC Skylab Houston for the SPT. On the XUV
monitor did INTEGRATE help any at all?

SC Yes. INTEGRATE helps a lot except that
the view you get is so brief that I really can't make out
detail such as small bright areas that we hoped we were going
to be able to see. The larger features do come in better.
My optimum integration looks to me to be about 3 seconds but
I sure would like to give this stuff now and I'd like for the
experts to look at it also.

CC Roger. We're trying to schedule that.

SC Okay.

SC Say, Hank. I put a message on B channel
about the EREP tape recorder checkout - It was just a little
funny, it doesn't mean anything - it's just something I wanted
to note and tape recorder 1 checks out okay.

CC Roger, copy. And we're about 30 seconds
from LOS. Honeysuckle is coming up at 18.

SC Roger.

PAO Skylab Control, Houston, at 13 hours
42 minutes Greenwich mean time. We've had loss of signal over
Madrid. The next station to acquire - Honeysuckle - in some
36 minutes. Meanwhile a decision has been made to hold a
private conversation requested by commander Pete Conrad at
approximately 10:30 p.m. CDT last night. This will take place
over the next station contact, Honeysuckle. The communication
will be with Johnson Space Center Director, Chris Kraft,
Director of Flight Crew Operations at JSC, Donald K. Slayton
and the on-duty Flight Director, Neil Hutchinson, as requested
by Conrad yesterday evening. A summary of this conversation
will be released. We're at 13 hours 43 minutes Greenwich
mean time and this is Skylab Control, Houston.

END OF TAPE

SL-11 MC-235/1

Time: 09:17 a.m. CDT, 149:14:17 GMT

5/29/72

PAO Skylab Control, Houston, at 14 hours 17 minutes Greenwich mean time, less than a minute now from acquisition through Honeysuckle. We expect no live air to ground during this pass. This pass has been scheduled for the private conversation requested by Commander Pete Conrad, yesterday evening, with JSC director, Chris Kraft, Donald K. Slayton and the on-duty flight director. In this case, the on-duty flight director being Neil Hutchinson. A summary of this conversation will be released later. We're at 14 hours 18 minutes Greenwich mean time and this is Skylab Control, Houston.

END OF TAPE

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Time: 09:38 A.M. CDT, 149:14:30 GMT

9/29/73

PAO Skylab Control, Houston, at 14 hours 38 minutes Greenwich mean time. Coming up now on acquisition of Skylab through Hawaii. We'll stand by for conversations between CAP COM, Henry Hartsfield, and the crew aboard Skylab. This is expected to be a 4-1/2 minute pass.

CC Skylab, Houston through Hawaii for 4-1/2 minutes.

SC Hello, Hank. Hey, if you've finished, we can't find it any place. What DAC do you want put on the EREP DTS?

CC Stand by 1.

CC Skylab, Houston. So that we can manage the VTR, we need to know if you're using it now.

SC Negative, Houston.

CC Okay. Did you get TV 1 accomplished?

SC Very sorry, I didn't hear you.

CC Roger. Was TV 1 accomplished?

SC Negative.

SC Houston, The CDR's having a problem with the launch lock on S009. That's why he's behind.

CC Roger. Copy.

SC Hey, Henry. Also, the ground, you guys owe us an answer from last night on the cryo heater do you want on in the command module. The configuration right now is O2 tank 2, and H2 tank 2 have the heaters in AUTO. And (garble) pump it out of those. Is that the way you want it? We just want verify it.

CC That's affirmative, Paul. That's a good configuration.

SC Oh, okay. We ask last night and never got an answer.

CC Skylab for the SPT. For planning purposes, we're going to look at your XUV monitor at the Mila pass, occurring at about 18:12 Zulu.

SC Okay. Thank you.

CC Correction. That's Goldstone at 18:05.

SC All right.

PAO DAC is a digital acquisition camera. The earlier conversation with Joe Kerwin dealt with the - his television monitor, with the Apollo telescope mount.

PAO Yes, the terminology DAC is data acquisition camera, not digital acquisition camera, as I previously stated.

PAO Skylab Control, Houston; 14 hours 45 minutes Greenwich mean time. We've had loss of signal with Hawaii. The next station to acquire, in slightly less than 2 minutes, will be Goldstone. Skylab is now on its 215th revolution.

END OF TAPE

BL-11 MC237/1

Time: 09:43 a.m. CDT, 149:14:45 GMT

5/29/73

PAO We've had acquisition through Goldstone.
Standing by now for the callup from CAP COM, Henry Hartsfield.
CC Skylab, Houston; stateside for 9-1/2 minutes.

SC Roger.
CC An answer on the DAC for the VTS it should be DAC 5.

PAO DAC the data acquisition camera. And they're talking about the camera number to be placed in the view finder tracking system. This is part of the EREP checkout procedure now taking place. Apparently pilot Paul Weitz now involved in that.

CC Skylab for the CDR. How are you coming with that S009?

CDR I can't work the, and (garble) I doesn't work.
SPT Houston, SPT.

CC Go ahead.
SPT Let me make sure I understand the status of the X-ray experiment. On S054 is the X-ray image also not to be enabled. I had a specific GARBLE photo multiplier image disector and don't know that X-ray image. I have not enabled it.

CC That's negative. The X-ray image should not be enabled either.

SPT Okay. What's the problem and the prospect?

CC Okay, it's just that the canister pressure hasn't met the guidelines of being down below 1 times 10 to minus 5th for 48 hours.

SPT Is it down there yet?

SPT I'm kind of surprised because we were planning to do this on day 4.

CC Everybody is a little surprised at that, Joe. It's still not quite down there - apparently we're still getting some outgassing in the canister.

SPT They think we'll make it though, huh?

CC Roger. We think it'll get there.

PAO S054 is the X-ray spectrographic telescope. We've been hearing from Joe Kerwin who is checking out the ATM.

CC And SPT for information since the TV 1 is just now getting on there, getting in work, we didn't dump the recorder so whatever is coming down from XUV monitor 1 now we'll be getting on tape at Goldstone.

SPT I'm not sure I understood that. I was not recording anything on the VTR.

CDR I'm supposed to (garble).

SL-1X MC237/2

Time: 09:45 a.m. CDT, 149:14:45 GMT

5/29/73

SPT Houston, SPT. Did you want me to record that XUV monitor data?

CC That's negative.

SPT Okay.

CC What's happening is we are recording your TV at Goldstone. We're recording what's on monitor 1.

SPT Rog.

CC Skylab, Houston. We're about 30 seconds from LOS; Bermuda at 59.

PAO Skylab Control, Houston; at 14 hours 56 minutes Greenwich mean time. We've had loss of signal. The next station to acquire is Bermuda in approximately 3 minutes.

CC Skylab, Houston through Bermuda for 5 minutes.

SC Good.

CDR Hey, Hank, CDR, GARBLE 1 is complete and it's on the VTR.

CC Roger, thank you.

CC Skylab for the SPT.

SPT Go ahead.

CC Roger, Joe. We've got a priority thing for you here in, accordance with your detail pad. We need to get the CMC up and get P00 in ACCEPT so that we can get some up-links in prior to the P50, P51. And we've got to get to them before AOS at Canaries.

SPT Okay.

CC And Canaries is coming up at 15:08.

PAO Skylab Control, Houston. That callup from Henry Hartsfield will require Science Pilot, Joe Kerwin, to go to the command module to turn on the command module computer. We're at 15 hours 2 minutes Greenwich mean time. Continuing to monitor this is Skylab Control, Houston.

END OF TAPE

SL-11 NC-238/1

Time: 10:02 a.m. CDT, 149:15:02 GMT
5/29/73

SC

Houston, you still there?

CC

Roger. Go ahead.

SC

Okay. S009 is activated now. For information, I had a very difficult time getting the package in, Hank. It probably won't mean any thing to you, but if any of the 009 guys are around, the distance between the 2 bearings on the actuators that gage the latches was absolute minimum. I don't really know how I finally got it in, but it's very close tolerance on the package dimensions and the dimension on the latches on the bearings of the actuating mechanism.

CC

Roger. Copy. You think - Well that's up in the MDA, so it wouldn't be a temperature problem.

SC

That's right. It appears to be functioning normally now. I closed the package and it went all right. That's just for information.

SC

And oh, Hank the package that goes in S009 has been in the film vault.

CC

Okay. That may be it, then.

PAO

S009 is a nuclear motion experiment.

PAO

Our first call on that was from Paul

Weitz. We later heard from Pete Conrad.

PAO

This experiment package is removed by one crewman and deploy - who deploys the emulsion stacks in the hard mounted experimented housing in the multiple docking adapter.

PAO

Skylab Control, Houston. We've had loss of signal with Bermuda. The next station to acquire will be Canary in approximately 1 minute and 15 seconds.

PAO

We now have acquisition of signal through Canary with Skylab. Standing by for callup from CAP COM Henry Hartsfield.

CC

Skylab, Houston, through Canaries for 9-1/2 minutes.

PAO

Skylab Control, Houston; 15 hours 13 minutes Greenwich mean time, continuing in this pass over Canary. No conversation at this time. We'll stand by and continue to monitor.

CC

Skylab, Houston. One minute to LOS; Honeysuckle at 54. And we got our uplinks in and computer's yours.

SC

Roger. Houston, the CDR's just putting on his biomed instrumentation and we're getting ready to start 92.

CC

Roger. Copy.

PAO

Skylab Control, Houston. We've just had loss of signal. The next station to acquire will be Honeysuckle in approximately 34 minutes. This is Skylab Control, Houston, at 15 hours 20 minutes Greenwich mean time.

END OF TAPE

SL-11 MO-239/1

Time: 10:23 a.m. CDT, 149:15:23 GMT

5/29/73

PAO This is Skylab Control, Houston, at 15 hours 24 minutes Greenwich mean time. The following is a summary of the private conversation with Skylab over Honeysuckle. The private conversation, requested by Skylab Commander Pete Conrad, was held this morning and lasted for the full duration of the Honeysuckle pass from 14 hours 19 minutes to 14 hours 25 minutes Greenwich mean time. Deke Slayton, Chief of Flight Crew Operations at JSC, opened the conversation with a callup to Skylab. Conrad began by apologizing for any medical inconvenience it may have caused when he was unable to wear the biomed harness the night before last. Slayton replied, "No sweat." Conrad reported that he thought the thermal situation in Skylab had stabilized in the 80's, and he thought this would be okay for the rest of the mission, with a possible exception of the M171 bicycle ergometer exercise. He allowed how the device does not "ride" in Skylab as it did on Earth, and he doesn't think the crew may be able to follow the full protocol on it. Today's medical protocol will give more data on that. Conrad said he slept well last night, but was a little warm. Conrad asked Slayton if the ground was working a procedure to free the solar panel on Skylab. Slayton replied that Marshall was working on it, and the crew would be consulted as soon as it worked out. Conrad also reported that he did not have a chance to work on the probe yet. He also remarked that during the trim burn last night, the operation of the TAC thrusters caused the sunshade to flab. He said the orange side is "still very orange and has not turned on at all". Conrad also said that he was surprised that the mission was going so well, and he expected to see the time line improve. He reported the crew was "really in good shape". Johnson Space Center Director, Chris Kraft, told Conrad he was very happy at how things were going, and said the ground would talk about the probe - or will talk about the probe, but he is satisfied it is okay. This is the end of our statement. At 15 hours 26 minutes Greenwich mean time, this is Skylab Control, Houston.

END OF TAPE

SL-11 MC240/1

Time: 10:52 A.M. CDT, 149:15:52 GMT

5/29/73

PAO Skylab Control, Houston, at 15 hours 33 minutes Greenwich mean time. One minute away now from acquisition of Skylab through Honeysuckle.

PAO The Mission Control Center now receiving data through Honeysuckle.

CC AOS over Honeysuckle for the next 9 minutes.

SC Roger, Houston. This is the SPT. I'm starting the P31. The field of view is quite small. Could you guys tell me what constellation I'm centered in?

CC Rog. Wait one, Joe.

CC Rog. Joe, have you tried to use the star tracker sensors to get started?

SC Say again.

PAO Skylab Control, Houston. That's Science Pilot, Joe Kerwin.

CC Have you used the star tracker option or not? To get started?

SPT No. You're pad said to use two stars so I assumed that was the CSM option.

PAO Kerwin speakin' from inside the command module. Now the computer on program -

SC Full status report - we're running farther behind on the M092. Part of it, in this case, we had to change GARBLE there. We couldn't wait GARBLE.

CC Roger. Paul copy. You're running behind on 92, you had to change out a leg band.

SPT You're right. We're just about GARBLE now.

CC Roger.

PAO That's Paul Weitz reporting on the experiment M092, the inflight lower body negative pressure. Meanwhile Kerwin in the command module having the computer in program 51. That's the command module computer, the program IMU orientation determination program. For M092 Pete Conrad serving as the subject; Paul Weitz serving as the observer.

CC For the SPT on stars; Nunki, Peacock, and Atria should still be pretty good stars. We're having - since you're in a dump we can't really give you a good hack on it.

SC All right.

PAO That's Astronaut Bob Crippen speaking to the crew. Sitting beside him, Henry Hartfield.

PAO Following the IMU orientation program on the computer, Kerwin will go to program 50. That's the ATM orientation determination program. Science Pilot, Joe Kerwin presently working inside the command module while Pete Conrad the subject for the inflight lower body negative pressure experiment with Paul Weitz the observer. We've got less than

SL-11 NC240/

Time: 10:52 a.m. CDT, 149:13:52 GMT

5/29/73

4 minutes remaining on this pass. Standing by continuing to monitor this is Skylab Control.

PAO Phil Shaffer sitting at the flight directors console along with Neil Hutchinson; Shaffer the Flight Director chiefly involved with command module activity.

CC Skylab, Houston. We're one minute until LOS. We'll have you again at Hawaii at 16:14.

SC Roger.

CC And, Joe, before I lose you here, the earliest you can start P50 is 16:15, 16:15.

SC Say again, Kirk.

CC Roger. The earliest you can start P50 is at 16:15, 16:15.

SC I've got you.

CC We've got to get some momentum dump completed.

PAO Skylab Control, Houston. It's 16 hours 4 minutes Greenwich mean time. We've had loss of signal. The next station to acquire; Hawaii in less than 10 minutes. This is Skylab Control, Houston.

END OF TAPE

SL-11 NC-241/1
Time: 11:12 a.m. CDT, 149:16:12 GMT
5/29/73

PAO Skylab Control, Houston, at 16 hours
13 minutes Greenwich mean time. Less than a minute away now
from acquisition of Skylab through Hawaii. When we last had
Skylab over Honeysuckle, Science Pilot Joe Kerwin was working
with the computer in the command module, performing the
orientation determination programs in the IMU and the Apollo
telescope mount coming up. Conrad was acting as a subject
for the M092 experiment, this the inflight lower body negative
pressure experiment, with Pilot Paul Weitz acting as the
observer. We'll stand by now for conversation.

CC Skylab, Houston through Hawaii 10 minutes.
SC Roger. Hello, Houston. I'm about to
start the P50.
SC And, Houston, which option would you like
me to take?
CC Roger. Option 2.
SC Okay.
SC Houston, SPT. Are you looking at the -
at the DSKY, or not?
CC Roger. We got them.
SC Okay; if they look good to you, I'll probn.
CC Those HOUN 23's look very good, Joe.
PAO That's Science Pilot Joe Kerwin talking
to Henry Hartsfield. Presently, he has the command module
computer in program 50, the Apollo telescope mount orientation
determination program.
SC You ready for me to power down the IMU in the
computer?
CC Say again, Joe.
SC Are you ready for me to power down the IMU
in the CMC? Over.
CC That's fine. You can go ahead and power down.
SC Okay.
PAO Skylab Control, Houston. The guidance
officer in the Mission Control Center reading the display,
showing registers on Joe Kerwin's computer. He's given the
"go ahead" for powering down the command module computer.
CC Skylab, Houston. We're about 1 minute
to LOS. We'll be back with you shortly at Goldstone 25.
SC Okay; roger.
PAO Skylab Control, Houston --

END OF TAPE

SL-11 NO-242/1
Time: 11:23 a.m. CDT, 149:16:23 GMT
3/29/75

PAO Skylab Control, Houston; 16 hours
14 minutes Greenwich mean time. We've had loss of signal
over Hawaii. The next station to acquire, Goldstone, in
1 minute 20 seconds.

PAO We have acquisition now through Goldstone.
CC Skylab, Houston, through Goldstone 7-1/2
minutes.

CC Skylab, Houston; for SPT.

SC Go ahead.

CC Yes, sir. For our info, did you get the
JOP 12 delta accomplished on the checkout?

SC No, sir. When I finished the coalignment,
I only had 9 minutes remaining, so I chose not to do any of
those options. I just didn't have time.

CC Roger. Thank you. And I wonder if you'd
be available to get a couple of switches for us?

SC Well, I'm in the waste management compart-
ment. How important is it?

CC Okay. No, no big rush. And whenever you're
free, just give us a call.

SC Okay. That'll be a couple of passes.

CC Skylab, Houston. Twenty seconds from LOS;
Bermuda at 37.

PAO Skylab Control, Houston, 16 hours 33 min-
utes Greenwich mean time. We've had loss of signal. The next
station to acquire will be Bermuda in approximately 3-1/2 minutes.

END OF TAPE

SL-11 NC134/1

Time: 08:28 a.m. CDT, 149:13:28 GMT

3/29/73

PAO Skylab Control, Houston. We've had loss of signal. Madrid is the next station to acquire in approximately 4 minutes.

PAO Skylab Control, Houston; 13 hours 32 minutes Greenwich mean time. Standing by now for acquisition with Skylab through Madrid.

CC Skylab, Houston, through Madrid, 9 minutes.

SC Hello, Houston.

SC Hi Houston. CDR, both tape recorders are loaded, just about to check them out.

CC Roger. Copy.

SC Houston you want me to tell you now in real time what our 16 millimeter configuration is or put it on tape.

CC That's your choice, Paul, which ever is easiest.

SC Okay, if you'll get out the film strips and let me go GARBLE.

SC Houston, SPT.

CC Go ahead.

SPT The XUV monitor in main position number 7 has just barely began to detect GARBLE and normal background features the - one feels that one needs about four more gain positions to do the job properly. When can I show you these.

CC We'll have to schedule that up, Joe, we'll let you know.

SPT Okay.

CC And PLT we've got the film prep pad.

PLT Okay. Here's what it is right now. The first line on transporter 02 is as advertised on the pad. The second line, now transporter A1 is bad and was reported as such by Dr - by the PS what's his name, yesterday as is takeup to fit MT01, therefore, the second line now reads transporter 03 and the takeup reel is MT10. That's MT10. And the third line, everything is as advertised except the takeup reel is MT11 that's 11. The redoing of panel 11 was because the straps aren't marked Hank, and I figured it didn't make any difference - I took the first two empty reels I came to.

CC Roger. Copy.

PLT And also for information, GARBLE GARBLE they all threaded beautifully this morning. I don't know if that procedure on pulling the film - everything you did must have worked - but no sweat.

CC Okay. That's good news.

SC Houston, the CDR wants to know if you're going to send him an S009 pad.

SL-11 NC234/2

Time: 00:28 a.m. CDT, 149:13:28 GMT
5/29/73

SC GARBLE delay this Houston.
CC Skylab, Houston for the CDR. You're
private comm request is set up on Honeysuckle. Next pass at
18.

SC GARBLE 18.
CC Did you copy that, Bill?
CC Skylab Houston for the SPT. On the XUV
monitor did INTEGRATE help any at all?

SC Yes. INTEGRATE helps a lot except that
the view you get is so brief that I really can't make out
detail such as small bright areas that we hoped we were going
to be able to see. The larger features do come in better.
My optimum integration looks to me to be about 3 seconds but
I sure would like to give this stuff now and I'd like for the
experts to look at it also.

CC Roger. We're trying to schedule that.

SC Okay.

SC Say, Hank. I put a message on B channel
about the EREP tape recorder checkout - It was just a little
funny, it doesn't mean anything - it's just something I wanted
to note and tape recorder 1 checks out okay.

CC Roger, copy. And we're about 30 seconds
from LOS. Honeysuckle is coming up at 18.

SC Roger.

PAO Skylab Control, Houston, at 13 hours
42 minutes Greenwich mean time. We've had loss of signal over
Madrid. The next station to acquire - Honeysuckle - in some
36 minutes. Meanwhile a decision has been made to hold a
private conversation requested by commander Pete Conrad at
approximately 10:30 p.m. CDT last night. This will take place
over the next station contact, Honeysuckle. The communication
will be with Johnson Space Center Director, Chris Kraft,
Director of Flight Crew Operations at JSC, Donald K. Slayton
and the on-duty Flight Director, Neil Hutchinson, as requested
by Conrad yesterday evening. A summary of this conversation
will be released. We're at 13 hours 43 minutes Greenwich
mean time and this is Skylab Control, Houston.

END OF TAPE

SL-11 MC-244/1

Time: 11:46 a.m. CDT, 149:16:46 GMT

5/29/73

FAO

Skylab Control, Houston; 16 hours 49 minutes Greenwich mean time. Skylab presently under acquisition with Canary. Back to back on this pass, Skylab will be acquired by Ascension. We have approximately 14-1/2 minutes before loss of signal with Skylab.

CC

Skylab, Houston. Ah - you free, SPT?

SC

No. I'll call you in one minute, Hank.

CC

Okay.

SC

Okay, Houston.

CC

Okay, Joe. Just wanted to clear up a little thing, here. You know, you reported this morning you were having the oscillations in the canister and we'd like to know if you noticed any abnormal canister motion during the four-limb coalign?

SC

No, I didn't, Hank. As a matter of fact, the deflection of the limb was remarkably steady, considering the oscillations that I noticed while playing it front center. I can't account for this. I guess I'll have to go back and look some more to pin it down.

SC

But, when I was sitting up the H-alpha reticles that was very easy to do. The limb was quite steady.

CC

Roger. Copy. Were you operating the zoom when you were getting that oscillation, this morning?

SC

Well, Hank; the oscillation was noticeable only in - in zoom IN. The farther out you zoom the less noticeable it became. In a full zoom-out it was undetectable. In full zoom-in or either H-alpha instrument, it was noticeable. It wouldn't affect seeing because it's too slow a period and not big enough to affect (garble).

CC

Joe, we had a little drop out there.

CC

Did you not hear any of it?

SC

Roger. We understand that the problem was most noticeable at a - when you ran back all the way in.

SC

That's right. It was undetectable when we were zoomed out. And I said, that it doesn't interfere with the operators seeing, but I think it might blurr some of the long exposures if it is really a canister jerk, which is what it appears to be to me.

CC

Can you say what axis it is in?

SC

Near the rear end of it seems like.

It's just a few odd seconds. Incidentally the resolution of both the H-alphas is terrific. They're very good pictures.

CC

Outstanding.

CC

Okay, Joe. I guess we've got a few switches we'd like you to get at your convenience. We'd like to increase the circulation a little bit to make it a little more comfortable for you guys. On the panel 614 down in the

SL-11 NC-244/2

Time: 11:46 a.m. CDT, 149:16:46 JKT
5/29/73

workshop there, we'd like you to get the dump 3 fans on. Close those 4 circuit breakers. And up on panel 203 our AM circulation fans, we'd like to take those to HIGH.

SC Okay. You got to put that power to burn. That's good. While we're at it, did I ever ask you what the problem was with CBRM 15, what you think about it?

SC You're gone, aren't you?

CC The problem on that one is that the contactor's stuck open. This has happened before in testing. And ah - The procedure we sent up to you, tonight to try, cured it up in the ground test. And beyond that we don't know any more. It's just a contact, and we can't get it to close.

SC Okay. Which contact is this?

CC It's the SAS contactor. The one that connects the solar panel to the CBRM.

SC Okay. Thank you. And is there any way I can get the power system alert light out?

CC Stand by.

CC Okay. You could turn it off by going to the switches and commanding the reg and charger off. But we've been keeping that reg on to keep the temperatures up. You should also be able to clear it by selecting the CBRM 15 with the rotary switch.

SC I can't make it go off. No way.

SC I haven't tried turning off the reg. And I take it you don't want me to. Selecting the CBRM doesn't work.

CC Roger.

CC And I've got a couple of more items for you, Joe. One, no rush on this, the next time you're up in the command module, want to get the optics power off. And the other thing is, the solenoid vent plug that we had you install, we did a little more soul searching about that and decided since the bird was good and tight it wouldn't cycle those valves. And I guess, we want you to take it off now so we can have our ground command dump capability.

SC Okay.

PAO Skylab Control, Houston, at 16 hours 59 minutes ground elapsed time. We've got about 4-1/2 minutes remaining on this Ascension pass. Joe Kerwin apparently, in his lunch period, talking to CAP COM Henry Hartfield, covering a variety of subjects.

CC Skylab, Houston. We're about 1 minute from LOS. We'll be coming up at Carnarvon at 29. One other item here, I've got a few little news items, you might be interested in. I thought maybe when all three of you were

SL-11 NC-244/3

Time: 11:46 a.m. CDT, 149:16:46 GMT

NC-244/3

having lunch, and relax there sometime, I could pop them up to them, if you're interested. I'll wait on your call for that.

SC Okay. We are interested. We'll let you know when we're having lunch. We're just about half way through CDR's M171.

CC Roger. Copy.

SC He's doing better than I did yesterday, Hank. But he's required some gross adjustments in the seat position on that bicycle.

CC Roger. We copy.

PAO Skylab Control, Houston at 17 hours 4 minutes Greenwich mean time. We've just had loss of signal with Skylab through Ascension. The next station to acquire will be Carnarvon in approximately 25 minutes. The last report we heard from Skylab, Pilot Paul Weitz who reported that Pete Conrad is performing medical experiment 171. This metabolic activity experiment apparently, Conrad working with the ergometer system. At 17 hours 5 minutes Greenwich mean time, this is Skylab Control, Houston.

END OF TAPE

SL-II MC249/1

Time: 12:28 p.m. ODT, 149:17:28 GMT
5/29/79

SC Okay. We're all congregated in the head, all for different reasons. Why don't you just go ahead and flip us the news.

CC Okay. I'll just run through a few items here. Former prisoners of war joined other Americans in honoring the nation's war dead Monday in the first Memorial Day since the Vietnam cease fire. The former POWs spoke at several observances throughout the country, most of them in their home towns. President Nixon spent the holiday at Key Biscayne preparing for his meeting with French President George Pompidou at Iceland this week. And this one, I thought Joe might be interested. Sculptor Jock Vitschitz, who died Saturday at 81, will be buried in Jerusalem, Tuesday. Born in Lithuania, the world-renowned artist immigrated to the United States after World War II. We had a rash of bad weather here. Several states in the southeast and lower mid-west suffered damage and loss of life during a series of tornadoes over the weekend. Alabama had 12 tornadoes in various locations, including one that struck Brent, only about 20 miles south of Huntsville. Russia also suffered natural damage when floods inundated more than 100 settlements and towns in central Siberia. No one was killed, but great damage to farms, factories and mills was reported. The US and Russia have signed a pact aimed at cleaning up the oceans of the world. Scientists from both countries met in Los Angeles for preliminary agreements that will be reviewed and are expected to be approved next fall. Got a bunch of ball scores here, in case you're interested in some of them. The big news over the weekend was Jack Nicklaus won his 48th victory when he won the Atlanta Golf Classic Sunday, and he took home with him about \$30,000 for his efforts. He had a 272 total, 16 strokes under par, and was 2 strokes ahead of his closest opponent, Tom Weiskopf. The 57th Indianapolis 500 Auto Race was cancelled Monday after a nine-car accident in the first lap. The 33-car field had just moved into the first turn when the accident occurred. The race had already been delayed because of rain. It was rescheduled for 9:00 this morning, and, at this point, it still isn't running because it's raining. Salt Walther was hospitalized in serious condition. Mike Hiss and John Martin suffered minor burns but are expected to race today. Nine spectators were also injured in the crash. Other drivers involved, but not seriously hurt, were Wally Dallenbach, Mike Mosely, David Hobbs, Lee Kunzman, Dick Simon, and Jim McElreath. And that's about all I had for you this morning, or afternoon.

SC

Thank you. How did the Cubs make out?

CC

Okay. Stand by 1. Okay, this is --

SC

(Garble) request for (garble).

SL-11 MC149/2
Time: 12:28 p.m. CDT, 149:17:28 GMT
5/29/73

CC This is Sunday's score. The Dodgers
took the Mets 2 to 1, and the Cubs beat Cincinnati 2 to nothing.

SC How about that. What's Houston in?

CC Well, Houston - I think they won Sunday
and lost yesterday. And they're about a game out of first.

SC Okay.

SC Hey - Hank, you still there?

CC That's affirmative.

SC Okay, I'm going to put a little old message
on B channel for M0171 guys to tell them what I did to get
through the run, okay?

CC Okay. Good show.

PAO Skylab Control, Houston; 17 hours
33 minutes Greenwich mean time. Still under acquisition with
Skylab through Carnarvon.

CC Skylab, Houston. We're about 1 minute
from LOS. We'll be coming up on Guam at 43. I've got a
quick question for you. From time to time we're getting
little small corrections for pads that you're using during
the day. Would you rather we try to catch you in a free mo-
ment and give those to you or try to catch you at the last
(garble) list prior to the activities of the corrections to?

SC We would like to (garble) you if you didn't
have to send us the corrections. In the meantime, why don't
you just try and catch us when we're free. I tell you, now,
we got behind this morning because of that light band carrier
on the M092 and a couple of things like that, and we're going
to really be rippling here, but I think we'll be back on
schedule in about an hour or so. What have you got for the
rest of the afternoon? What changes have you got? What
experiments?

CC Okay. There is nothing coming up soon,
and we're about LOS. We'll catch you at Guam.

CC Okay. No sweat.

PAO Skylab Control, Houston; 17 hours 38 min-
utes Greenwich mean time. That was Pete Conrad talking to
Henry Hartsfield just at loss of signal with Honeysuckle. The
next station coming up will be Guam. And Guam is approximately
5 minutes away from acquisition. This is Skylab Control,
Houston.

END OF TAP2

SL-11 NO-246/1
Time: 12:42 p.m. CDT, 149:12:42 GMT
5/29/73

PAO Skylab Control, Houston, at 17 hours
42 minutes Greenwich mean time. Less than a minute away
now from acquisition by Guam tracking. We'll stand by and
monitor.

CC Skylab, Houston through Guam for 2-1/2
minutes.

CC Skylab, Houston. For your info, we can
see those M092 vents very plainly in our momentum profile.
And the dump this time looks like we need a 5 degree yaw
correction, which should cause the star tracker not to acquire,
and I think you just got that alert. And we're getting a
pad for you now.

CC Skylab, Houston. Do you copy?

SC Yes. Sorry, Hank. I had to have it ex-
plained to me because the music was on too loud, and then I
had to drag out my pad, and put down my macaroni, and now
I'm ready to copy.

CC Okay. We're working on the pad, Joe.
I'll give you a buzz when we get it.

CC We'll get the pad to you in Hawaii, Joe.
Really sorry about your macaroni. We'll be coming up on
Hawaii at 53.

SC He says he's not going to put his macaroni
down again to answer you.

CC Roger; copy.

END OF TAPE

SL-11 MC-247/1
Time: 12:32 p.m. CDT, 149:17:32 GMT
3/29/73

CC Skylab, Houston through Hawaii for 4-1/2 minutes.

SC Roger. Hank, say, we could have a little discussion here, and let me pose a question to you.

CC Okay.

SC We got that 300-millimeter Nikon lens, which we hadn't originally planned on having. Will you check with the photo people and, if possible, lend us a pad to use the other Nikon camera, and if there is any extra color exterior, we would like to rate that to use in the wardroom window along with the Hasselblad. We haven't done any photography, to speak of, out the window because we flat haven't had any chance. But we sure are passing over a lot of places we haven't before, and I'd like to pick up some 70 and some 300-millimeter of the good stuff that we're seeing. I missed Italy the other day when the weather was absolutely perfect. We just didn't have the camera ready, but we thought we might use that 300. Plus, we were going to try and photograph some of the fellows that are following us around that belong to what came off the vehicle. I think the SII has been hanging around here and we get a pretty good look at something every evening.

CC Roger. We'll put that in work.

SC Thank you, sir.

CC That thing I was talking about awhile ago - those pads, Pete, we've got a - we sent you up a stowage pad last night with a whole new stowage list to update it because we didn't have time to do it before launch. And we find that we needed to add a little something in there. And the other kind of thing is we made a small error in the 190 heater pad that was part of the EREP pad.

SC Okay. I'll - just a second - let me get my book so that I can copy. What's our next station?

CC Okay, we'll be coming up stateside here at 05.

SC Okay, we'll copy both of those then. Unfortunately, we got a little hot thing in. We had moved a lot of the gear that you had on the pad this morning already out of the PF, so I'm gonna - I'm gonna have to modify that. What I'm going to have to do is chase it down from where we got it and put it where you want it.

CC Okay, it's not a - it's not a movement thing, it was just an addition where we said to move the (garble). We wanted to make sure you vent - remove the cover.

SC I'm not sure I know what you're talking about.

SL-II MC-247/2

Time: 12:52 p.m. CDT, 149:17:52 GMT

5/29/73

CC And we got a little reminder for the SPT. This is our - this Goldstone pass coming up is our TV pass for the ATM. We'd like for him to go through the normal T7 operations and the XUV MOD at the end. And I also have the star tracker gimbal angles now.

SC Okay. Go ahead.

CC Okay, the stars Achernar and Outar is minus 0536; Inner, minus 0211.

SC Roger.

CC And this pass at Goldstone will be live, and all the PI's are chomping at the bit to get a look at it.

SC Okay, well, Hank, I've got a couple of jobs layed on for this pass. I'll just rely on you to call me up and tell me what you want on the monitor and when you want it.

CC Roger.

CC And we got about 10 seconds to LOS. Goldstone is coming up at 05.

SC Still with us, Hank?

CC Roger.

SC We may miss TV 2 to give me the Goldstone stuff and stay on schedule. I'm not sure how it's going to work. We'll try and squeeze it together.

CC Okay.

PAO Skylab Control, Houston, at 17 hours 59 minutes ground elapsed time. On the upcoming U.S. pass we do expect live television, as you heard, of the Apollo telescope mount over Goldstone. Following this Goldstone - following this, Goldstone will send some television recorded earlier today. We expect this will be a television of food preparation involving the specimen mass measuring device. A representative of the Johnson Space Center Medical Directorate will be in the small briefing room of building 1 to talk about the food preparation television, and answer questions from newsmen. We now show a loss of signal with Hawaii. The next station to acquire will be Goldstone in approximately 5-1/2 minutes.

END OF TAPE

SL-11 MC148/1
Time: 1103 p.m. CDT, 149:18:03 GMT
5/29/73

PAO Skylab Control, Houston; 18 hours
4 minutes Greenwich mean time. Standing by now for acquisition through Goldstone.

CC Goldstone for 5 minutes.

SC (Garble).

CC And, SPT, we'd like for you to fly the scheduled ATM pass there and the TV, and at the end of it, you can give us some extra XUV mode.

SC Okay. I'm behind, Hank, because I was pointing to (garble) 14 when suddenly the (garble) glitched me clean off the Sun. It looked like it ran forward and just stopped. No. I'm back on the Sun now and pressing on. I really don't know why it happened.

CC Roger. Did you zero the wedges before you started, Joe?

SC Oh, yeah. They were doing fine now - they need to be rezeroed down, but I'm not going to do it until after I get the picture.

CC Okay.

SC And if you guys are getting light TV, I have my monitor 2 now, the XUV monitor, and it's the best brightness and contrast and intensity that I can get.

CC We don't have our picture yet. We're checking.

CC Okay, we're getting it now.

SC Okay, (garble) that H-alpha 2. It kind of did it to me again (garble) other way. Won't take but a minute.

SC Now my left-right is okay. My up-down is stuck at 101. I'd like to change up their gyros, with your concurrence.

CC Stand by.

SC Meanwhile, there is the XUV monitor for you.

CC Roger.

SC Is our gain 7? Brightness 7, contrast

9.

CC And you're cleared to change gyros.

SC Thank you.

CC And would you integrate for us.

SC Stand by. It's leaning away again.

SC See what's happening?

CC Zipped right out of there.

SC There is a cycling max rate up and down. I've changed back to the primary gyro.

SC And what you're looking at now is something funny on H-alpha 2 that I can't explain. H-alpha 1 doesn't do it. I'll give you a couple of seconds of that. Then I'll go back to (garble) and integrate.

CL 11 NC248/2

Time 1:03 p.m. CDT. 149:18:03 GMT

3/20/73

CC

Are you doing integration now, Joe?

SC

I'm integrating now. I'm going to go back to (garble) and do it again.

CC

Okay. And we've got about 15 seconds left, and we'll pick up at Texas at 12.

SC

Is that live TV over Texas?

CC

That's negative.

SC

Okay. Maybe you got some of the integration. I hope so.

CC

Roger. We did.

PAO

Skylab Control, Houston; 18 hours 11 minutes Greenwich mean time. We've had loss of signal with Goldstone. Standing by now for acquisition through Texas.

END OF TAPE

SL-11 WC-249/3
Time: 1:11 p.m. CDT, 149:18:11 GMT
3/29/73

CU Skylab, Houston, ah - Texas for 12 minutes.
SC I can understand why they're not going to
have a race in Indianapolis, we can see the weather.
SC We're over Lake Superior here and see
all the clouds.

SC Houston, SPT.

CC Go ahead.

SC The oscillating on H-A1 only occurs
when you're zoomed all the way out. And it's - I can cure
it by zooming in part way. The up-down gyro problem is
something I haven't solved yet. When I go to the backup
gyro it begins its oscillation up and down. It goes divergent.
I think what I'm going to do is go to solar inertial and
then switch to - the gyros to secondary and in a couple
of minutes - - that experiment for you.

CC Roger. We concur.

CC We think that maybe, the reason the -
you oscillated there, was that we didn't give enough time
for that gyro to spin out.

CC SPT, Houston. I guess when we're
switching these gyros, we ought to go to solar inertial,
power up the other gyro, and then after it spins up, go back
to IPC.

PAO That's CAP COM Henry Hartsfield talking
to Joe Kerwin through Texas.

CC SPT, we don't see a power discrete on that
gyro, yet. We want you to hold up on going back to EPC

CC Okay. Gyro looks good to us, now Joe.
You can switch back.

SC Okay.

SC Now we've got our first, really good,
look at Long Island, and New York, and Cape Cod, Delaware Bay
and all that.

SC Okay, Houston. I have an up-down oscil-
lation now of about 4 or 5 arc minutes. I can point with the
manual pointer controller; I cannot damp the oscillation in
the (garble) readout does not change.

CC Roger. Copy.

END OF TAPE

SL-II MC-250/1
Time: 13:18 p.m. CDT, 149:18:18 GMT
5/29/73

CC SPT, Houston. We don't fully understand why the canister is doing what it's doing there. We'd like you to go back to solar inertial and let us mull it over awhile.

SC

Okay.

SC

Houston, you still there?

CC

That's affirmative.

SC

May I run through the (garble) procedure

11 Bravo?

CC

Stand by.

SC

Hank, you still with us?

CC

Sure are, Pete.

SC

Did you get any of the VTR, this morning,

yet?

CC

That's affirmative, Pete. We got it.

SC

Okay. You got it, very good. Thank you.

CC

SPT, Houston. We're going to give you

a mile a minute. We're debating on what it should be, 11 alpha or 11 bravo.

SC

Okay.

CC

PLT, Houston. You free?

CC

SPT, Houston. We want you to run APCS 11

Bravo.

SC

11-Bravo, in work.

SC

To do that, I'm going to go back to the

primary of that gyro, right now.

CC

Roger.

CC

CDR, Houston. Have you put the new S019

film in?

SC

Who you talking to?

CC

CDR.

SC

No.

SC

Not yet, it says not to.

PAO

Less than a minute away now from loss of

signal through Bermuda.

CC

Skylab, Houston. We're about 30 seconds

from LOS. We'll be coming up on Ascension at 3:03.

PAO

Skylab Control, Houston, at 18 hours

25 minutes Greenwich mean time. We've had loss of signal through Bermuda. The next station to acquire will be Ascension in approximately 8 minutes. During this stateside pass, just ended, we saw the first operational use of the Apollo telescope mount in the mission control center through the medium of television. Meanwhile, the average air temperatures inside the workshop is currently on the order of 88 degrees. Examples of temperature ranges; the experiment compartment floor, 85 degrees, this being on the low side of the scale. The experiment compartment ceiling in the middle range, reading 87 degrees. Thermal

SL-II HC-250/2

Time: 13:18 p.m. CDT, 149:18:18 GMT

5/29/73

experts from the Johnson Space Center and the Marshall Space Flight Center are currently studying the workshop temperatures which appear to flattening out somewhat from earlier predictions. We are at 18 hours and 26 minutes Greenwich mean time and this is Skylab Control, Houston.

END OF TAPE

SL-11 NC291/1

Time: 1:52 p.m. CDT, 149:18:32 GMT

5/29/73

PAG Skylab Control, Houston, at 18 hours 32 minutes Greenwich mean time. One minute away now from acquisition of Skylab through Ascension. The orbital workshop now on its 218th revolution. We'll stand by and monitor this pass, which is some 5-1/2 minutes in duration.

CC Skylab, Houston through Ascension 5-1/2 minutes.

SC (garble)

CC Joe, we've got a question for you. Did you zero the wedges after you turned on the fine Sun sensor for this daylight pass?

SC Negative. I came up using the darkside sunside prep. We should close them up waiting 90 seconds and proceeding on. I didn't zero the (ringing noise in background) (garble). However, they were operating perfectly normally, and then suddenly I was down at activation 14 GARBLE and suddenly took off. Now I've been through MALF 11B and I came out at snap 6. Namely, when I switched the point search system from primary to secondary, the problem went away. The vertical wedge did zero nicely. It's behaving normally. I still have the jitter - - in the canister - it's too big. So, I'm performing building block 4. I'm on 4A, and I think I may get 4B in before we quit for the day.

CC Roger. We copy and in regard to that zeroing the wedges, we think that's the source of our problem. What we're going to have to do is zero the wedges everytime after we turn this fine Sun sensor off and bring it up again.

SC Okay. You guys are going to lose a lot of data with all this Mickey Mouse GARBLE GARBLE takes a long time.

CC And the problem we had with the secondary rate gyro there, we think was - it's taken a lot longer than 90 seconds for that gyro to warm up. Your checklist says 30 minutes although we allow 90 seconds in emergency situation and the reason you got the up-down oscillation, we think, is because it just flat didn't get up to the speed and wasn't ready to go.

SC Yeah, it would seem to me we probably ought to make a rule to leave those things on all day GARBLE.

CC Okay. We're considering that, Joe, we're discussing now where we just might want to leave the EPC up all the time. The reason we were turning it down was power considerations.

SC We understand that it's a hard trade-off to make, Hank, but it sure does behave.

CC Rog, understand.

SC Say in a minute we've got something else we'd like you to think about.

SL-11 MC251/2

Time: 13:32 p.m. CDT, 149:18:32 ZMT

9/29/73

CC

Go ahead.

SC

In an attempt - now that we've got the airlock heaters - the airlock fans going full bore, that makes it nice and cold in the airlock - in the MDA, and it's still kind of warm down here. I'd like you to consider if we'd put up a portable fan in the airlock, either blowing warm air into the MDA or blowing cold air into the workshop.

CC

You know, it's kind of funny you mentioned that because we've been talking about that for the last hour.

SC

Ha.

CC

We've got a procedure in work right now, and we'll be getting it up to you shortly.

SC

That's what we were afraid of. We don't need a procedure. Just tell us if you want a fan in the airlock and which way you want it to GARBLE blow.

CC

Okay. What we want then, Paul, is we want it in the OWS hatch, right at the hatch entrance and pulling out the hot air and pulling it up towards the airlock, toward the MDA.

CC

And we're about 30 seconds from LOS. We'll be coming up on Carnarvon at 03, and we'll get a data recorder dump there.

SC

Okay, have you got TV2 on VTR?

CC

Roger, copy.

CC

Say, we're looking at TV1 right now.

It looks real good.

PAO

Skylab Control, Houston; at 18 hours 39 minutes Greenwich mean time. We've had loss of signal.

CC

Roger. Still here, but we're about to fade out.

SC

Okay. I forgot to check this GARBLE pad, S082 A, still operating.

CC

What was the question again, Joe?

SC

S082A still isn't operating right.

GARBLE got a breakdown long ago. And I think probably it did, but the operating lights stayed on.

CC

Oh, roger, copy.

PAO

Skylab Control, Houston; 18 hours 41 minutes Greenwich mean time. We had some bonus acquisition time with the crew over Ascension. We should have had loss of signal but we did hear from Joe Kerwin, following that predicted time. We presently show the next station to acquire will be Carnarvon. And Carnarvon acquisition some 22 minutes from this time. The major part of the Ascension pass was spent in a troubleshooting discussion between CAP COM, Henry Hartsfield, Joe Kerwin on the first sunlight pass using the Apollo telescope mount. We're at 18 hours 41 minutes Greenwich mean time. This is Skylab Control, Houston.

END OF TAPE

SL-11 MC232/1

Time: 14:02 p.m. CDT, 149:19:02 GMT

5/29/73

PAO Skylab Control, Houston, at 19 hours 2 minutes Greenwich mean time. Now approaching acquisition with Carnarvon tracking. We presently show Skylab with an orbit of 240.2 nautical miles by 233.1 nautical miles. Skylab now on it's 218th revolution. We'll stand by now as Skylab is contacted by CAP COM Henry Hartsfield.

CC Skylab, Houston through Carnarvon; 10-1/2 minutes and we'll be dumping your recorder here.

SC Roger.

CC SPT are you free now?

SPT Since 1865.

SC Houston, CDR.

CC Go ahead.

CDR What was the change in the stowing thing you wanted to give me.

CC Okay, Pete, down on the stowage list on that - the big long page we had you to change out completely and replace - down where it said S019 film canister and cover, we left out some remarks on moving the old film. We should have told you to vent and remove the cover and move the old film to F510 GARBLE.

SC I haven't found it yet.

SC Did you want the SPT.

CC I was telling SPT. That message number is 515 Bravo 2, Pete.

CC And it's right here.

SPT Yeah, I got it but I think you - you don't mean S019 do you. You mean S183.

CC Make that page 3 Bravo 3.

SPT I don't have a Bravo 3. I've got everything on that S183 and 300 millimeter lens, it goes down to the TDI detectors and so forth, is it down past that?

CC Roger. Should go on talking about charcoal mass and then S019 film canister TDI detector bags entertainment tape cassettes.

SPT Yeah, I've got that much but I don't see any S019 anywhere.

CC Right under the charcoal masks.

SPT Yeah. I found it up in the dim light. Okay. Now what do you want to do, move old film to F510G?

CC Right, and just prior to that move we want you to vent and remove the cover. That was the part we left out. You've got to vent; it can there and remove the cover.

SPT Okay.

SPT Also I'm working on the front part of it right now and there's no way all that sail stuff will

SL-11 MC232/1
Time: 14:03 p.m. CDT, 149:19:02 GMT
9/29/75

fit in the bottom bag so I have all the sail stuff in the sleeping bag that part of it was stored in. I'm going to leave it that way if everybody is happy with it.

CC Roger. That's good. And SPT.
SPT Go.

CC Okay, we goofed up when we commanded that filter 2 awhile ago to remove the transit indication we forgot to send a reset so before you crank up the ATM at 19:22 we need you to DAS in a 40075. That's filter 123 reset.

SPT 40075.

CC Roger. If you don't do that your filter wheel will cycle.

SC Our filter wheel, Henry.

CC Okay and the story on this EPC is we've decided that we won't pilot the fine sun sensor down any more - just every night when you're through with the experiment point mode we'll just go to solar inertial and leave everything powered up. And in regard to the fine sun sensor - we'd like for you to go back to the primary, zero the wedges and see how that works out on this next pass. If you again have a problem then go on back to secondary.

SC Sounds good. And just to be on the safe side, I'd like you guys to send me up maybe on the teleprinter a short change to when to turn it on to darkside prep. So I don't be just arbitrary.

CC Okay. You - say that again, you want to change the list to the darkside prep?

SC Right. To eliminate those steps which power down and power up the fine sun sensor and the gyro.

CC Okay. We'll see what we can do.

SC Okay.

CC And just as a reminder, Joe, if you do have to go to the secondary fine sun sensor don't forget to zero the wedges before you do anything.

SPT Okay.

CC And for the CDR we reviewed TV2 and it looked real good. However, the silver team missed your T-shirt. That was TV1.

CDR Say again, Hank.

CC Roger. We reviewed TV1 and the silver team missed your T-shirt.

CDR Oh, I didn't bring it this trip.

CC PLT, Houston.

PAO Skylab Control, Houston; 19 hours 12 minutes Greenwich mean time. Less than 2 minutes remaining on this pass over Carnarvon with Skylab.

CC Skylab, Houston we're about 40 seconds from LOS; be coming up on Guam at 17.

END OF TAPE

SL-14 MC-253/1
Time: 14:13 p.m. CDT, 140:19:13 GMT
5/29/73

PAO Skylab Control, Houston, 19 hours
14 minutes Greenwich mean time. We've had loss of signal
with Cassiopeia. The next station coming up to acquire is
Guam. And that acquisition should occur in approximately
2 minutes.

PAO Skylab Control, Houston. We're receiving
data now through Guam. This should be about a 10-1/2 minute
pass over Guam tracking for Skylab.

CC Skylab, Houston through Guam for
10 minutes.

SC Roger.

SC Hey, Henry. I need a - just a verifica-
tion from the EREP boys in the backroom, there.

CC Go ahead.

SC Were they sure it's a drawer K? Which
is the first (garble) K, which is still 5th November. Is the
whole set to be replaced? And I'll load the magazine cell
with set Q. Is that correct?

CC That's correct, Paul.

SC Thank you.

SC Also, I just put it on tape, but to make sur
the pad said to put the empty cassette bags in F521. Ask Chuck
Fulton (garble) put them in F520.

CC Roger. Copy.

SC Say, Hank, are we going to have to dress
Friday (garble) waste water or do we have a dump room in the
service module tank when that waste tank is full this time.

CC I'll get your answer on that, Pete.

SC Say again.

CC I'll be getting an answer for you.

SC Thank you.

CC CDR, Houston. Looks like we'll have to make
one more dump a couple days from now.

SC Okay.

SC Hello, Houston; SPT.

CC Go ahead.

SC I came up in experiment pointing with the
primary light (garble) and I went to two of the wedges and their
up there wedge won't zero.

CC Roger. Copy.

SC Now. I can move the canister, but the
wedge won't let it go. It's stuck in (garble).

CC Okay. Why don't you go ahead to secondary
and zero those.

SC Will do.

CC SPT, Houston. Our computers are gone down
here in the MOCR, and we haven't got any data this whole pass.
And we were wondering how it's going. We'll be able to play the
data back later.

SL-II NO-253/2

Time: 2:13 p.m. CDT, 149:19:13 GMT

5/29/73

SC

Okay. I'll work my own.

PAO

Skylab Control, Houston. Immediately after that report from Henry Hartsfield to Joe Kerwin, the control processor came back up in the Control Center. We're again receiving data. We're at 19 hours 23 minutes Greenwich mean time.

CC

SPT, Houston. We got data now. We see sitting at 20 and 31 on the wedges.

SC

Okay. Those must be the unbiased numbers. I've got bias (garble) getting ready to do a JOP 6, building block 1.

CC

Roger.

CC

Skylab, Houston. One minute to LOS; Goldstone at 42.

PAO

Skylab Control at 19 hours 27 minutes Greenwich mean time. We've had loss of signal now through Guam Tracking. The next station to acquire will be Goldstone some 15 minutes from this time. We're now at 19 minutes - 19 hours 28 minutes GMT, and this is Skylab Control, Houston.

END OF TAPE

SL-11 NC-294/1

Time: 2:41 P.M. CDT, 149:19:41 GMT

9/29/73

PAO This is Skylab Control; 19:41 Greenwich mean time. Coming up on Goldstone, Texas, MILA, Bermuda pass across the United States, sweeping down from the Seattle region, across the mid-West, and out over the Atlantic around Cape Kennedy. Standing by for resumption of air/ground communications, this is Skylab Control.

CC Skylab, Houston. Stateside 17 minutes.

SC Roger, Houston, Houston, the CDR has surrendered. Where is E 699?

CC Stand by.

SC I'm glad you didn't snap back with the answer right away.

CC What goes there, Pete?

SC All this stuff you want me to collect down in the command module.

CC Somebody said that was a trash airlock, but we're not sure that's right.

SC No, the trash airlock is 634. That thought occurred to me too, and if you say 634, I'm happy.

SC Houston, SPT.

SC Houston, SPT.

CC Go ahead.

SC Hello, Houston. Report the white light coronagraph looks very nice. However, it doesn't appear to be quite 100 percent centered. There's a region of brightening. We're not seeing (garble). It's not that bad. But it's bright. On the 7:30 to 8:30 position of the display, and I can eliminate that by manipulating the visual pointing control, and that's for information.

CC Roger.

CC SPT, Houston.

SC Go ahead.

CC Okay, we're still looking at this problem we had awhile ago. When you said that the can was moving, but the counter there on your wedge wasn't moving, did the canister move the same way you had the MPC moved - or the little control stick?

SC The canisters moved appropriately.

CC Okay, we were just chasing a possibility of finding where you can get on the wrong side of the wedge, and the things are going opposite directions.

SC No, that doesn't appear to be the case. I was moving it back and forth across Sun-center and it was working all right.

CC Okay.

CC CDR, Houston.

SC Yeah.

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3/29/73

SC Okay, we got the answer. It's same old thing - done it several times before - stowage location versus panel number; K699 is the trash airlock; 634 is the panel on it; that's where you control it.

SC Okay, everybody wins. Thank you.

END OF TAPE

SL-11 NC255/1

Time: 2:50 p.m. CDT, 149:19:50 GMT

5/29/73

SC

Think you can go ahead now?

CC

Go ahead.

SC

I got a couple of words of interest to the EREP training boys that may be in the back room. I just finished loading one set of magazines. It went well, the procedure. For information for Jack Louse (or the other guys, I did not put the magazine in the little clip for the holder. I just handheld it, and everything went hotay-totay.

CC

Roger; copy.

CC

And PLT; Houston. We sent you a message this morning, number 521; had something to do with the S190 heater, and there was a change to your checklist. Do you recall that one?

SC

Who are you talking to?

CC

PLT.

SC

No, sir. It's finished just about breakfast time. I think we haven't checked the teleprinter messages. We're about to start S009. I'll call you back when I'm done, if I can.

CC

Okay.

SC

Still there, Hank?

CC

That's affirmative.

SC

I have 009. I want to confirm that the pot setting is 097 and not 970.

CC

That's affirmative.

SC

Okay, I just went to INITIATE; it's in the process of opening. I'm going to go look and see how the EREP pad - or do you want to tell me about it right now? I'm right here.

CC

Okay, it's not the UF pad. It was a little message that concerned change in the S190 heater. You took the S190 window heater on and off - and it went in your checklist, and you probably will catch that it's wrong anyhow, but what the pad said was if the DELTA TEMP light comes on, push to test. And what we really meant to say is if it goes off, push to test.

SC

Okay. What's the upshot? Are we going to use the heater now or not?

CC

Not today, but it goes in the checklist for OPS.

SC

Oh, another one of those.

CC

Skylab, Houston. One minute to LOS. We'll be seeing you at Carnarvon at 43.

SC

Okay, Henry. Also, I see the change here. Are we going to run the heater or not? Can you just tell me briefly? Are we going to run it while we're operating or what? On S190 window?

CC

Stand by.

SL-11: M0133/2
Time: 2:50 p.m. CDT, 149:19:50 GMT
5/29/73

SC Okay. You can give me the answer at Carnarvon. It's no sweat. Also, you had a question on the solenoid vent valve. We have not cleared the debris yet. We have not had a chance to clear any debris yet, and it really needs it.

CC Okay; copy. And to answer your question, we do plan to run the heater during OPS.

SC Okay.

PAO This is Skylab Control. We've had loss of signal from the Mila station. Skylab space station crossing the northern coast of South America, on the start of revolution 219. During the just-completed stateside pass, the science pilot reported that an initial run with the S052 white light coronagraph, which is one of the telescope mount experiments, "looked very nice". The pilot, Paul Weitz, reported that he successfully loaded one set of film magazines in the earth resources experiment package cameras, with no difficulties at all in getting the film to thread properly. And shortly after completing the loading of film in the EREP package, he went about his business in activating the S009 nuclear emulsion experiment, which will be retrieved and brought back aboard the command module. The experiment is mounted in the multiple docking adapter; it consists of stacks of emulsion which collect traces of primary cosmic rays, with particular emphasis on heavy nuclei. At 20:02, returning in 40 minutes for Carnarvon, this is Skylab Control.

END OF TAPE

AL-12 000000/2

Time: 3:42 P.M. CDT, 149:20:42 GMT

3/29/73

SC This is Skylab Control, 20:42 Greenwich mean time. We have acquisition through Carnarvon. Very short pass and a little over 6 minutes because of the 3.8 degree elevation angle. Stand by for Carnarvon. A brief gap of about 8 minutes across to Guam. Standing by; Skylab Control.

CC Skylab, Houston through Carnarvon 3 minutes.

SC Roger, Houston.

CC Skylab, Houston. Have you done anything with the portable fan yet?

SC Yeah. We've got it set up. It's been running.

CC Roger. We were just going to suggest a location for you, but you beat us to it. I guess the only thing --

SC Houston put in the dome hatch before, and that's where we got it.

CC Okay, I guess the thing we were concerned about - we didn't want it too close to the intakes to the OWS heat exchanger - we kind of wanted it sort of opposite from that.

SC Well, we hadn't thought about that. We thought about the inlet skin of the OWS. The CDR will check that out on his way back down to the workshop.

CC All righty. And in regard to the plan for the S190 window heater, what we want to do on that is when we start regular operations is turn it on somewhere, hour or hour and a half prior to each pass, and then turn it off afterwards. And a little change we sent you goes to the prep checklist; so that should take care of it.

SC Okay, the hour or hour and a half will fit in with the way I just inserted that last change, right?

CC I've been told it will.

SC Okay. And the inspection of the S190 window shows it to be in good shape. So I sprung this one on you - (garble) for real. It surprised me very much in that on the S190 camera, all the dessicants are white, and I'm in the process of changing them right now.

CC Roger. Copy.

SC Also, there is a very large scratch on the inside of the S190 outer cover. I wish I'd have known it was there, because it gave me quite a start. When I looked at it and saw it, I thought it was in the glass.

CC Roger.

CC Skylab, Houston. We're about 10 seconds LOS; Guam in 57.

END OF LOG

SL-11 MC-237/1

Time: 15:53 p.m. CDT, 149:20:54 GMT

5/29/73

CC Skylab, Houston through Guam for
1-1/2 minutes.

SC Roger.

CC Skylab, Houston; one minute to LOS;
Goldstone at 19.

SC I'm still in the midst of S190 checkout.
And the other guys are running M092 171.

CC Roger. And we're scheduled for a
recorder dump at Goldstone. We'll see how it goes.

SC Okay.

PAO This is Skylab Control. Apparently,
loss of signal from Guam, following a rather brief pass.
And except for, AOS and LOS calls from the CAP COM, and
one brief response, a rather quite pass. Sixteen minutes out
of Goldstone. For the next to the last stateside pass of
the day, spacecraft just to the southeast of the main island
of Honshu in Japan. The pilot, Paul Weitz, reported that
he was in the process of checking out the S190 multispectral
photographic cameras, part of the earth resources package and
the earth terrain camera, an associated experiment. While
his crewmates were running the M092 and M171 joint medical
experiments. 15 minutes to Goldstone. At 21:03 Greenwich
mean time; Skylab Control.

END OF TAPE

SL-11 MC238/1

Time: 16:18 p.m. CDT, 149:21:18 GMT
5/29/73

PAO This is Skylab Control; 21:18 Greenwich mean time. About 30 seconds away from acquisition of Goldstone, perhaps less. Skylab space station will cross the Pacific coast just north of San Francisco; arc down over Arizona, New Mexico, El Paso, through central Mexico. Standing by for next to the last stateside pass of the evening, Skylab Control.

CC Skylab, Houston. Stateside for 15 minutes.

SC Roger, Hank. On the S190 filter - filter Alpha Alpha - what would appear to be water spots - you know little brown spots like a water drop had dried there around the edge for a short distance. Do you want me to try to clean it or just leave it be?

CC Stand by on that a little bit, Paul. Let us check the preflight map into that thing and see if it was there.

SC Okay.

CC Skylab, Houston. Whoever is free to answer we'd like to verify that you do have the portable fan set up such that you are pulling the warm air from the workshop and pushing it up toward the MDA.

SC You bet you.

SC It's pulling so hard it's trying to suck the SPT right out of the LBNP.

CC (Laughter) Roger. Copy.

SC Henry GARBLE here. Are you ready for a little malfunction on the EREP gear?

CC Say again, Paul.

SC I say we got on S190 - when I go to operate on it, you get all 6 malfunction lights on.

CC Okay. You've got the film loaded. Is that correct?

SC That's affirmative and going through malfunction procedure number 2 for S190 leads to the box labeled camera monitor lodging carrier.

CC You're sure - I guess I had a look at that now but that rules out that film takeup thing we had before.

SC See if they go out.

CC Skylab, Houston. We just had a voice dropout for about the last 15 seconds, could you say again.

SC I say it done it twice on single and the frame got it's advance all right. I could make a mark on the film. I don't have to. Let me go ahead and pull the 40 frames or whatever the checklist calls for. We'll see if they go out.

CC Okay.

SL-11 MC258/2

Time: 16:18 p.m. CDT, 149:21:18 GMT

5/29/73

CC PLT, Houston. We've got a suggestion here. Would you try cycling the S190 power off and then back on again and see if the lights reset.

SC I just did that, Hank, and they are reset. So I'll give her a single pulse now.

CC Okay.

SC When I thought we were home free I went ahead and gave him a single pulse. I heard it go. The malf lights did not come on. While I was over verifying the GARBLE - I looked back and all six are on again.

CC Roger. Copy.

SC Hank, do you think I ought to just go ahead and start this 40 frame sequence with all the malf lights on, or go ahead and recycle the power and reset it and see what happens.

CC Stand by one and let me see if I can get an answer. In answer to your filter question that was previously mapped prior to the flight, Paul, so we do not want you to clean it. There is a coating on that filter.

SC Okay.

SC Henry, you got a minute for another comment?

CC Roger, go ahead.

SC Okay, also we're going to have to move those spare hot water heaters some place tonight because they are in the way. I have to stow one of the GARBLE shields in the S190 before we run in the UF. So could somebody do a little research and just give us a page number for the procedure for that just so we don't have to mess with it.

CC Roger. Will do. And the word is cycle your S190 power switch and go ahead with your 40 frames.

SC Okay.

CC Skylab, Houston. We're about 45 seconds from LOS. We'll try to have an answer for your questions at Vanguard and that comes up at 44.

SC Okay, Hank, it's into AUTO SEQUENCE, now. I can hear it running. All six malf lights came on on the second pulse. It almost appears to be more GARBLE than when first operating pulse than anything else.

CC Roger. Copy. We'll take that data.

PAO This is Skylab Control. Loss of signal from the MILA station; 9-1/2 minutes to tracking ship Vanguard. Space station now beginning revolution number 220 as it crosses the longitude of Cape Kennedy. It was reported during that pass that all malfunction lights came on on the S190 earth resources camera system and presently the crew is running down through the malfunction procedures and trying to isolate the

SL-11 MC258/S

Time: 16:18 p.m. CDT, 1/9:21:18 GMT

5/29/73

reason for the equipment malfunction. Perhaps they will have additional information over Vanguard on whether or not they succeeded in making the malfunction lights stay out. At 21:35 and 8 minutes out of Vanguard, this is Skylab Control.

END OF TAPE

SL-11 MC-259/1

Time: 4:43 p.m. CDT, 149:22:43 GMT

5/29/73

PAO This is Skylab Control; 21:43 Greenwich mean time; 20 seconds out of acquisition at the Tracking Ship, Vanguard. Revolution 220. Standing by now, for CAP COM, AOS call. Vanguard pass almost 10 minutes long. Skylab Control standing by.

CC Skylab, Houston through Vanguard for 9-1/2 minutes.

SC Rog.

CC PLT, could you give us an estimate of how many frames you've run through the 190?

SC Be right with you.

SC What was it you wanted to know, Hank?

CC Roger. EREP would like to know how many frames you estimate you ran through the 190.

SC How many I have run through, so far?

CC That's affirmative.

SC (Garble) 3 singles and in a sequence of 40. And the sequence time there right on the money at a minute 24.

CC Roger. Copy. Did those malf lights stay on all the way there, Paul?

SC Yes, sir, Joey turned the switch to

STANDBY.

SC Code switch, that is.

CC Roger.

SC Could you give it the Conrad fiscal, put tape over the mouth like the (garble). How's that?

CC That sounds like a good plan. Hey, on the heater stowage, we've got that set up for a day-6 transfer, which you haven't gotten to yet. But if you want to do it, it's on page 2-22 Bravo in the day-6 transfer.

SC Well, do we do that before our first EREP pass?

CC That's affirmative. I think that's scheduled this evening. The day-6 transfer should have been accomplished by the CDR.

SC Not there yet.

SC Okay.

SC Hey, I guess I misunderstood that, Hank. That great bit long-winded list of stuff you gave me to transfer from the command module, I took it there. So I have to pick the rest of that out of the stowage book.

CC Roger. That's correct, Pete.

CC Skylab, Houston. We're about 1 minute to LOS. We'll be picking up Goldstone at 59.

PAO This is Skylab Control. Loss of signal from tracking ship Vanguard. One hour and 4 minutes from next acquisition at Goldstone, for the final Goldstone pass of the evening. Only 4 minutes and 49 seconds in that Goldstone pass. As the orbit moves westward, actually the earth is

SL-11 MC-259/2

Time: 4:43 p.m. CDT, 149:22:43 GMT
5/29/73

moving eastward. The orbit is staying in the same place. Rather quite pass over Vanguard, very little conversation. The commander was reminded that he should be involved in what is called day-6 transfer equipment, lockers and so on. And he said he hadn't gotten to that yet. At 21:55 Greenwich mean time; Skylab Control.

END OF TAPE

SL-11 MO-240-1

Time: 17:58 GMT 149:22:58 GMT

5/29/73

PAO This is Skylab Control, 22:58 Greenwich mean time. We've had acquisition of data through Goldstone, no voice contact, yet.

PLT Roger, Houston. The board for the EREP guys. That board 91 has been on for 43 minutes, but I do not yet have a ready light. If they're ready back - in the back room, I'll give them a couple of readings that are (garble).

CC Okay, go ahead.

PLT Okay, Alfa 7, which is CAL SOURCE temperature reads Lower Limited. It's off. It acts in such a way, that I can't really tell if that's what it's reading, or if it's a bad meter. The CAL RAD current is reading right at zero. B7, I forget what that was. proper limit on that heat CAL is 80. It's reading at 83 percent.

CC Was that B - Bravo 7?

PLT Yes, Bravo 7. Let me move up to B & D.

CDR Hey, real quickly, Hank, when you have a chance, you have to explain to me what you want me to do with the bad coverin the new S019 film. (garble)

PLT Did you hear, Hank?

CC Roger.

PLT Hello, Houston.

CC Hello there, go ahead.

PLT Okay, did you hear Pete's question?

CC Roger, I guess we're sitting here trying to figure out exactly what he wanted. On the old film he was to vent the container, and remove the cover, and then stow the old film.

CDR And then stow the old film?

CC Stand by a minute, Pete. I'll get someone to get an answer on that.

CDR Yes, your message was garbled, and the pad was garbled to start with, so I'm not exactly sure what you want me to do. (Garbled)

PLT Okay, Henry. Bravo 7 on S191 is (garble) thermal (Garbled) It's 80 percent now. It was 83 awhile ago, apparently it's coming down. The cooler is running. I can hear it running.

CC I can hear it running, too. It almost blocked the transmission.

PLT Yeah, it's noisy up here with all this stuff going.

PLT We're pressing on with S192 alignment, and I tell you, that focus is a heck of a thing to try to work with. I can get a whole lot more out of that focus by deflecting it, than I can focusing it. Once I get it close, I'm never going to touch that darn thing again. I'm sorry I did now.

SL-11-NO-20072

Time - 1713Z CDT 149:22:58 GMT

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CC Roger. I understand. It's always been a little touchy.

PLT Here's a couple of other items of interest - S192 coolers adjusted speed after 17 minutes of operation. And the 193 checked out. I got a funny I wanted to look into. We were in cross track, yes CROSS-TRACK configurant, and -

CC Okay, Pete, the message on that stowage is, you vent the old S019 film canister, remove the old film, and store in P-510 Golf, and then stow the canister, the old canister in beside it. You can't store it with the film in the canister. And we're 10 seconds from LOS, and Vanguard's coming up at 21.

CDR I guess what you're saying is, we're going to bring the old canister home.

CC Affirmative.

PAO This is Skylab Control. From the scratchy noise it sounds as though we have had loss of signal from Goldstone. Sixteen minutes to tracking ship Vanguard. Temperatures in the Skylab space station are - in the work areas are still ranging in the mid to high 80s, through most of the measurements. The following is a summary of the current status of telescope mount experiments on Skylab. The Apollo telescope mount experiments, completed a completely satisfactory ground commanded and manned checkout at about 10:00 a. m. central time today. Initial observations of the Sun commenced soon afterwards, and experimenters reported the telescopes were functioning extremely well. Initial examination of quick-look data, which has thus far been down-linked to the ground has caused great interest among the ATM experimenters. The hydrogen alpha telescope, which the astronaut used to guide the ultra violet and X-Ray instruments to objects on the Sun, have exhibited great sensitivity and performance, showing a variety of phenomena, such as active regions and filaments on the Sun, and prominences extending out into the solar corona. Fine structures on the quiet Sun, which is one of the objectives of investigation by many of the experimenters is easily visible to the astronauts. The layers of the Sun at 100,000 degrees Kelvin, were seen by the Hayward spectroheliometer in the light of doubly ionized carbon at 977 angstroms, and show many patches of intense emission about 5,000 miles in diameter, some 10 times brighter than the quiet atmosphere. A sharply defined ring of emission appears at the solar limb. Fine structures can also be seen in the solar corona from many times ionized magnesium at several million degrees temperature. Details previously unresolved by satellites are visible on the

SL-11 NC 260/3

Time: 17:58 CDT 149:22:58 GMT

5/29/73

Sun and are now being studied in greater detail. The white light coronagraph experiment of the high altitude observatory has obtained to date, over 400 high resolution images of the solar corona. Some most impressive results viewed by the experimenters, were the solar images through the Naval research laboratory instrument, S082, sent to the ground by television. One of these showed the Sun and the extreme ultra violet. The ionizing radiation extending to soft X-Rays, as sent to the ground by science astronaut Joseph Kerwin; these images showed a string of brilliant patches of light, so-called solar centers of activity, crossing the Sun from east to west. These are the regions from which the scientists hope that the solar flares will be recorded, and a small flare was believed to have been photographed with one of the instruments. Other parts of the extreme ultra violet image showed the quiet corona, ionized gas at a temperature of a million degrees. The X-Ray spectroheliographs of American Science and Engineering, and the X-Ray telescope of Marshall Space Flight Center, started to take scientific data on Sunday night at 03:39 Greenwich mean time, and has secured already several hundred photographs of the hot - that is greater than one million degrees - gas contributing to the solar corona, which is shaped by the solar magnetic fields. The analyses of X-Ray photographs are expected to yield information on electron density, and temperature of various stages of solar activity, ranging from the quiet corona to the most explosive phenomenon namely, solar flares. The ATM experimenters are being joined in their solar observations by a number of ground based experimenters around the world a combined study of the Sun. Daily and hourly reports of the ATM observations are being sent out to participants in this coordinated activity under way in more than 15 countries. Ten minutes to acquisition at the tracking ship Vanguard, and at 23:10 Greenwich mean time, this is Skylab Control.

END OF TAPE

SL-11 NC-261/1

Time: 18:20 EDT, 149:23:20 GMT

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PAO This is Skylab Control, 23:20 Greenwich mean time. Fifty seconds of acquisition from the tracking ship Vanguard. Estimate on the Change-of-shift press conference in the Houston newsroom is now 7:15 approximately central daylight time with the Flight Director - offcoming Flight Director, Neil Hutchinson and other participants unknown at this time. Standing by for a Vanguard pass - 10-minute pass.

CC Skylab, Houston through Vanguard 10 minutes.

CDR Go ahead.

PLT Okay Henry, put a few more comments on the tape recorder for EREP quickly. What it amounts to is I can't align the thermal channel of S192. Regardless of what I do with either the alignment knob or the focus, it sits there at 12 percent.

CC Roger, copy.

CC Pete, I think I finally understand this SO-19 thing. The canister cannot be stowed with it all put together. It won't fit in there so you have to vent it and remove the lid and then it'll go in the F-510.

CDR Take the whole one and vent it and take the back cover off? Is that what you want me to do?

CC Roger, take the old one and remove the cover, vent it, remove the cover, then it'll fit in the stowage location.

CDR The only trouble is we got 89 (garble) We'll have to look at that in a moment. I understand what you're saying now.

CC Okay and SPT?

SPT Hello.

CC Hey, I got a little change for you tonight on your 0026 pass. The purpose of our first day activities, of course, is see a variety of solar activity. Well, during last night AR-15 which is your scheduled target declined in intensity while AR-17 increased dramatically and has been emitting one small flare every hour or so. So we kind of think that AR-17 represents a much better target than 15. So we're asking you to look at AR-17 on building block 10 and that 00265.

CC That's a change of target only. Not operations or time.

SPT Okay, I was just writing it down. What's in it for me?

CC Ought to be a little more fun on it.

SPT True, okay.

CDR Henry, are you with me for a minute (garble)?

CC Roger, go ahead.

CDR I don't understand the very last line in my stowage where it says page (garble) page 2- (garble) and after

SL-11 MC-261/2

Time: 18:20 CDT, 149:23:20 GMT
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TV, return to position-CM 182 from "side of A-9" (garble) sensitive. Maybe I'll tell you that later on. But if you can come up with what (garble) in the command module -

CC CDR, while we're looking on - looking at that we just want to clarify once again that we do not want to touch the new 8019 canisters. It's just the old one that we are going to take the cover off of.

CDR

Very good.

CDR

I understand that, Hank.

CC

Hey we got some words to lay on you about the thermal situation. Do you want to hear that now?

CDR

Yeah.

CC

Okay, the average internal temperatures have shown a 5-degree drop in the last 24 hours. As predicted the magnitude of the drop per day is slowing down. The temperatures will be doing most - -

END OF TAPE

SL-11 MC-262/2

Time: 18:26 CDT. 149:23:20 GMT

5/29/73

reading I don't - I didn't really look at. The last one I gave you was that - the last time I looked at was that 80 percent I gave you.

CC Roger, copy. We're about 30 seconds from LOS. Hawaii will be coming up at 03:00.

CC CDR, we'll give you an answer on that storage at Hawaii.

PAO This is Skylab Control, LOS Vanguard, the start of revolution number 221. Hawaii in 57 minutes. During the Vanguard pass, spacecraft communicator Dick Truly passed up to the crew the current assessment of the temperature situation on the space station. He told the crew that the average temperatures at the various sensor points had been - had a trend downward of about 5 degrees on the average during the last 24 hours. The lowering of temperatures occurred primarily during the sleep period when there was low crew activity and fewer items of equipment, heat-generating devices, being turned on. And the prediction is now here on the ground that the workshop temperatures will probably stabilize at around 80 degrees instead of the earlier predicted 70 degrees. Fifty-six minutes to Hawaii and at 23:33 Greenwich mean time, Skylab Control.

END OF TAPE

SL-12-10-10271

Time: 10:20 CDT, 149123:26 GMT

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CC - a 5 degree drop in the last 24 hours. As predicted the magnitude of the drop per day is slowing down. The temperatures will be doing most of their decreasing during the night when you're sleeping. And we expect to just hold our own during the crew-awake period. It appears that the models we're using were not quite as accurate as we thought. Thus we may have - they had led us to believe would be lower at this point in time. There may be a small portion less than 10 percent of the parasol that is not doing its job as a radiator. These last two items plus the observed performance to date has led to conclude that we will probably stabilize out in the neighborhood of 80 degrees rather than the earlier predicted 70 degrees.

CDR Okay. I know where that 10 percent is. You can run your hands around the wall and you can find it real easy.

CC Roger, copy.

PLT Hello, Houston?

CC Go ahead.

SPT (Garble) with a teleprinter. Can I advance it and take out the message?

CC Affirmative. And we've got a question for you PLT. I think we must have had a voice dropout here previously when you were talking about the S-193 cross-track contiguous. Can you give some more words on that?

PLT Yes, I expected the meter to indicate between 10 and 90 percent which is full sweep on roll on that thing. According to all the information we got onboard including the checklist, then all I did was oscillate between 40 to 60, which means that it's not rolling as much as it's supposed to.

CC Roger. Copy.

CC PLT, EREP says that's a normal value there, a normal range.

PLT (Garble) Houston. Why did the checklist say 10 to 90 on everything else including the (garble) data (garble)? I'm sorry I thought it was supposed to go from 10 to 90 and back and forth.

CC We'll look at it some more, Paul.

PLT By the way, Hank, I terminated EREP check-out without doing the S-191 portion, standing by for words of yaw. The EREP's power down now and it's ready light never did come on and I never progressed then with 191.

CC Roger, copy.

CC PLT, Houston. What was your final reading there on B-77 Bravo 77?

PLT I was in transit (garble) - the final

SL-11 NO-183/1

TIME: 1968 CDT, 190100:29 GMT
3/29/75

PAO This is Skylab Control 00:29 Greenwich mean time, AOS at Hawaii for about 8 minutes. Following loss of signal, hopefully, the Flight Director will appear in the newroom for the Change-of-shift press conference. Neil Hutchinson still handing over to his relief.

CC Will do it.

CDR Quick.

CC Hey, I only got a couple of things. One's for the SPT if he's at the ATM panel. We've got the TV recording set up at Hawaii for this pass and if he has time to turn on the XUV monitor television to down-link it we'd sure appreciate it.

SPT Right now or when?

CC Rog. Right now, during this pass, Joe.

SPT Okay. Here we (garble) a real-time (garble)

17 (garble)

CC Joe, the squeal on that speaker box is so loud that I couldn't read you. Sorry, say again, please.

SPT Stand by.

SPT I get a lot feedback from the EREP guys. I say you've got the live regions of region 17 and H-Alpha - now I'm going to switch to XUV MONITOR.

CC Okay, thank you much.

CC And the only other thing that I had here was if the CDR still is confused about that stowage book message that we sent on page 2-22B, I think I understand at least what we intended by that change if he - if you're past that point in the checklist I won't worry about it.

SPT Houston, SPT.

CC Go ahead.

SPT I've got a couple of items for you. One, I reported a jiggle this morning in both the H-alpha displays and I think I talked myself into something that's not as bad as it sounds, because while it's true that the display jiggles, the mechanical cross here is jiggling right along with it, and they do not move relative to the Sun. To me that means that the canister isn't jiggling - that something is jiggling my TV image. And the pictures are probably going to be great. Over.

CC Hey, that's a good hint and we'll take that into consideration and think about it. Thank you.

SPT Okay, now the other thing I want to ask is about the power down for unattended ops. Do you want us to inhibit CMG AUTO RESET or not? If (garble) on the cue card there was a late change and we've been doing pretty good without it. I want to know your ideas on that.

CC Okay, we'll get back with you.

SL-11 NC-263/2

Time: 19:29 CDT, 150:00:29 GMT

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CDR Say, Dick, what stage you want the evening status report at tonight? Is that on my card or is it the med conference because I can never remember which ones are they?

CC Stand by Pete. It's two stations from now and I'll get you a time.

CC It's the Hawaii pass at 02:05. So that's the next time we come around here at Hawaii is the evening status report. And then following that we've got the medical conference pass and then we'll have one more pass at Ascension before you go to bed.

CDR Okay, fine.

CC Okay.

CDR How are things down there on the ground tonight there, Richard?

CC Well, we're just hangin on. It's kind of warm in Houston, but it's been real pretty the last few days. It's been a meritorious day, Pete.

CDR Well, I'm having fun up here. Got my good country music going.

CC Roger.

CDR Hey, did they get the 500 - -

END OF TAPE

SL-11 MC-264/1

Time: 19:34 GMT 190100:34 GMT

5/29/73

CDR Hey, did they get the 500 off today or not?

CC Pete, I understand that it got delayed again because of rain, and so it's gonna be start - they're going to try again in the morning.

CDR Okay. I've got to find out whether we've got a pass over there tomorrow.

CC Rog. Hang on and I'll let you know about that - next pass.

CDR Thank you, sir.

CC Roger.

CC Skylab, Houston. We're about 50 seconds from LOS. We're going to see you at the Vanguard at just about on the hour, and Joe, in answer to your question, we would just as soon leave the CMG AUTO RESET ENABLED. Over. If that's okay with you.

SPT That's good. We would too.

CC Okay, let's go that way.

SPT Okay.

CDR See you at the Vanguard.

CC Okay. See you there.

PAO This is Skylab Control. We've had loss of signal out of Hawaii. Coming up on tracking ship Vanguard in 20 minutes. However, that station pass will be recorded for delayed playback because of the change of shift briefing. Flight Director Neil Hutchinson just gave an estimate of 10 minutes on his arrival at the Houston News room for the change of shift press conference. All station passes that occur during the press conference will be recorded for playback at the conclusion of the press conference. Twenty minutes to Vanguard, and at 00:38, This is Skylab Control.

END OF TAPE

SL-11 NO-263/1

Time: 20:57 CDT, 150:01:57 GMT

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PAO This is Skylab Control 01:57 Greenwich mean time, 8 minutes to acquisition at Hawaii, final Hawaii pass of the evening. We have about 6 minutes of accumulated tape from the air-to-ground during the most recent pass over the tracking ship Vanguard. We'll play back that tape and then come in live with the up-coming Hawaii pass. Let's listen to the tape now.

CC Skylab, Houston, we're AOS at Vanguard for the next 9 minutes.

PLT Roger, Houston. We're all sitting around the table eating.

CC Very good. Enjoy your dinner. And we're standing by.

PLT Okay.

CC And Skylab, Houston. No response required, but this evening we're going to be one by one sending up a series of commands to reset all the power system ALERT lights and we're able to do that for all the CBRM's except for number 15 and we have a little three-switch sequence for the next guy at the ATM and I'll be telling him if we have a pass while he's at the ATM panel tonight. If not, we'll put it on a message and you guys can do that in the morning. Out.

SPT Okay, Houston, good time for any boloney you want to pass up too, 'cause we're all sitting around just nothing to do but listening to young Richard Truly.

CC Just to listen to our boloney huh? Roger. Well, we have - we are checking tomorrow's groundtrack and we're going to be getting some words for you as to when you are going to be coming closer to Indianapolis.

PLT Pete says if that weather keeps like it is he may get back in time to see the race.

CC That's true. I think you're going to have to hurry. I think they're planning on running it tomorrow.

CC And one more note of an official nature. Be advised that this evening we are going to be doing some commandings while you guys are asleep to - on fine Sun sensor malfunction - a command procedure we have. And for the last guy that leaves the ATM this evening, be sure and leave the MPC INHIBITED powerwise.

CDR Yeah, I think we'll be on the checklist by then and we have that on the checklist. Dick, say I wanted to comment that I thought today went real well and from our point of view. We got behind a couple of times but we had a little opportunity to catch up and most of the getting behind was honest malfunctions. The one we had on the leg measurement device. We've had a little trouble with the biomed sensors. It's warm enough down here that everybody is - still their body

SL-11 MC-269/2

Time: 20:57 GMT, 150:01:57 GMT

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is a little sticky and even though you've dried out pretty good they don't stick as well as they did on the ground, so we've had quite a few of those fall off. But looking at tomorrow's schedule that looks real good too, and I think we ought to be able to do that once (garble) in.

CC Okay, sounds real good. Also, I forgot to tell you, we are going to be sending up a teleprinter message. This pass that has a series of six or seven questions for you guys that you might smoke over before the next pass which is the evening status report pass.

SPT Will do.

CC Okay.

CC And Skylab, Houston. For the CDR, one of the questions that's not going to be on the evening questions pad that I thought I would read to you, and you can either reply to it here or we'd be glad to take it at the evening - at the next pass on evening status - and that involves the amplitude, the frequency, and the time duration of the parasol oscillations that you saw last evening when you did the RCS trim burn. And we're also wondering at what point in the burn did the oscillations start? Were they at the beginning, middle, or near the end and were they caused by - did they appear to be caused by TACS firings or vehicle motion? Over.

CDR That phase - when the TACS fires, one of the radial firing thrusters where if you're outside - any thruster - you can see it fire. The cold gas seems to have - I don't know a touch of moisture or something in it but it's absolutely puts out sort of a puff. And the sail was very definitely just oscillating when a TACS thruster was fired during the trim burn. I - there's no doubt in my mind that it was the TACS thrusters that were making the sail oscillate. And it was probably thruster number 1.

CC Roger, copy. What kind of amplitude was the sail going through, Pete? And how fast - what kind of frequency - could you estimate that or just give us a ballpark idea?

CDR It was just a flap once a (garble) for each TACS firing. It really didn't flap, you know, and then dynamically die out. I think that material is relatively stiff right now and it'd really take one shot when the TACS thrusters go off and then that would be it.

CC Roger, copy. Thank you.

CDR Let me say that after it was all over the sail - the part of the sail that I could see was still wound up in the same place it was before we started that. So I don't know - I can't tell you what it did on the back end which is obviously where it was all coming from.

SL-11 MC-263/3

Time: 20:57 CDT, 190101:57 GMT

5/29/73

CO Roger. But you think that after all was said and done the call ended up in the same place as far as you can tell?

CDR Yeah, at least the front end - the part that I could see is still right where it was before.

CC Skylab, Houston. We're about 40 seconds from LOS. The next pass is Hawaii at 02:05 and we'll begin the evening status report from you there and we'll see you there.

CDR See you, Dick.

PAO Skylab Control. That concludes the Vanguard recorded pass. Up live now for Hawaii. Acquisition in a little over a minute.

END OF TAPZ

SL-11 MC-266/1

Time: 21:04 CDT 130:02:08 GMT

5/29/73

CC Skylab, Houston. We're AOS at Hawaii. We've got you for the next 10 minutes. Go ahead.

CDR Roger, Houston. I have the evening status report for you. But, first, to settle one of those great questions that have come up during the course of the design of Skylab over the last 5 years. We have put to bed once and for all, the question of, "Can you run around the water ring lockers or can you not run around the water ring lockers?" I have just made 10 trips around the water ring lockers, and the SPT has made five, which means he owes Ed Gibson a steak dinner, and Dr. Faget was right. You can generate enough g's to run around there as long as you want to.

PLT And the PLT has been doing his big for science while they been testing.

CC Roger. I copied that. and did you trip on those blivets on those lockers underneath the tank over there?

CDR No, you can either jump over them, or you can run just below them. And that's where you got a great deal of control. And the tendency is to start running too fast, which gets you completely disoriented, but if you start out at a relatively slow pace, and gingerly putting your feet between the cracks in the locker to push off, you can gradually work your way to an upright position, where you are, in fact, truly running. And we will document that for you on TV. I think it's rather spectacular.

CC That's just what I was going to request. I guess we ought to get on with the evening report, but I certainly would like to see that documented myself. And I'm standing by.

CDR Okay, the CDR was a good boy again and polished off everything plus add one set extra butter cookie. The SPT did not eat his bread or catsup, which he has marked down as spoiled, at lunch time. Nor did he eat item 62, his coffee, snacks, or 07, his apricots. He had no additional salt, and his mineral tablets were 32000.

CC Okay.

CDR The PLT ate all three meals. The snack items that he skipped, 62, coffee; 1/2 mints. He had four optional salts, and his mineral pills were 31010.

CC Roger. Got that.

CDR The photo log is as follows: 16 millimeter, CPS UP-DOWN-BH01-95 N/A. Next line, M151, M092-171, C103 20 percent.

CC Roger. Got that.

SL-11 NO-246/2

Time: 21:04 CDT 150:02:08 GMT

3/29/72

CDR Okay. On NREP, that's 190A SET K,
7201 9400 6919 6309 8076 6977.

CC Roger.

CDR And malfunction. CIL1, X quarter 02.
CIL2 failed to start. Hundred percent remaining on CIL1.
We will clear the jams tomorrow during the film thread, and
start over again with that one, so if you'll just put it
up on the film thread pad to reload CIL1 on 02, with CIL2
as take-up, we'll fix it. Whatever's the matter with it.

CC Okay.

CDR Flight plan deviations. There were
none. Any (garble) data changes have been reported on
B channel, and there weren't very many, as I remember.
Any inoperable equipment has been reported on B Channel.
Guess that's it for today. Oh, hold it, I got the answer
to a couple of questions.

CC Okay.

CDR All right now message 0517 Bravo on
the food procedure. We see no problem with one, two, three,
or four, and as a matter of fact had already been doing
that. There's sometimes we're a little late eating, so the
heaters have been running a little longer, but otherwise
we agree with those procedures, and this general message
051AP, we have not cleaned the debris out of the solenoid
vents. They are capped. We can't clean them by
removing the screens, which are deep, and vacuuming, and
we request that you schedule that on the flight plan, and
we will do same for you.

CC Okay, we'll do that. One thing on that
solenoid vent valve, is that - You say it was capped, is that
plug in or out?

CDR It's - I believe you asked us to plug
it, and therefore it's plugged.

CC Stand by 1. Well, we'll get back to that,
Pete, continue if you got anymore.

CDR No, but apparently you sent word up
today to take it back off, and Joe did do that.

CC Okay. We agree. Okay, continue, if
you have anymore.

CDR Nope. That's it.

CC Okay. Is the PLT listening up at the
ATM? I have this procedure to clear that CBRM light if
he has a chance to throw three switches for me.

PLT Dick, go ahead with it.

CC Okay. First, down in that lower right
hand corner of the ATM panel. POWER SYSTEM CBRM SELECT. Switch
to 13-18. In the rotary switch put that to 3/15. And

PL-11 NC-266/3

Time: 21:04 CDT 150:02:08 GMT

2/29/73

then the REC switch, momentary on, UP.

PLT Going there now.

CC Okay.

PLT That's complete.

CC Okay. One question. We sent up some

questions this evening on Message 0615. Do you have the answers to those. If not, would you put them on the tape recorder when you get a chance, please?

CDR Okay. I haven't seen that message. Maybe it's in the teleprinter. Did it come up late?

CC Yes, that was the one that came up at that last pass that we - that I told you about, about an hour and a half ago - an hour or so ago, but don't sweat it. You can get to it. I do have one comment for tomorrow morning's blood drawing. We found on the tape recorder, I think, I believe Bill Thornton did, a problem that you had with the air in the blood samples, and I'm advised that during SMEAT and also during some of the free-flight M10, series blood drawings, they did have some problems with air leaking into the sample through the syringe needle interface, and about the only suggestion we have there is making - checking real sure that the needle is placed as firmly as possible on the syringe.

CDR Dick, our problem apparently was that the ask, although evacuated by the aspher, would partially leak back down, before we had a chance to put the blood in them, so my plan for tomorrow is to evacuate immediately before using that particular asp.

CC Okay, Story says that's a good approach. He agrees. Another question for you, and we don't have to get an answer on this now, but we would appreciate it if you can remember. What is the status of the film that was taken on mission day 1. The rendezvous in each of the 35 millimeter, the 70 millimeter, and the 16 millimeter cameras? We want to know how many -

CDR Okay. Let me give you a status. On the 16 millimeter camera I used one whole magazine, that started at about stationkeeping distance, and has the whole flyaround on it at one frame a second, and then on the same magazine, I had 20 remaining, so we had the whole SEVA on that one magazine. And the other magazine is 100 percent full and I don't remember the number of it. The 70 millimeter, we are using that as general photography that has those pictures on it, and the 35 millimeter film is still in the camera, and I forget, maybe Paul remembers how many pictures he took on it.

SL-1/ NO-267/1

Time: 02:52:52 CDT, 150:02:52 GMT

5/28/75

PAO This is Skylab Control 02:51 Greenwich mean time. A minute and 50 seconds out of Ascension Island station. We have about 45 minutes of conversation toward the end of Vanguard pass when the medical conference was terminated and the air-to-ground circuit turned back over to CAP COM. We'll play that tape now and join Ascension Island pass live.

CC Skylab, Houston, I understand we have air-to-ground back. We are about 30 seconds from the end of this pass. We're going to be at Ascension at 02:53 about 7 or 8 minutes from now.

SPT Okay, we're answering your questions on B channel, Houston.

CC Very good and I'll have a couple of things to say to you there. Be advised - Indianapolis - you guys are going to be overhead at 12:36 Zulu, almost right overhead, that's 7:36 in the morning local, so if the weather's clear you ought to be able to look straight down and watch the cars warming up.

CDR 12:36 Z. Thank you sir.

CC Roger.

CC Skylab, Houston. We're AOS at Ascension for the next 4 minutes.

SPT Hello, Houston.

CC Hello there, Joe. I've got a couple of things that I'd like to mention to you guys here at this last pass if you don't have anything pressing for me.

SPT No, go ahead.

CC Okay, first of all - and is this portable fan that we - that you guys set up pointing some of the OWS warm air forward? It turns out that we've looked at the data and the present location that it's in is actually hurting us a little bit in our total cooling capability and we'd like to request for this evening that you do one of two things. Either move the fan to the same wall as the OWS heat exchanger fans and blowing forward. And our purpose is to get the warm OWS air right over the, or near the heat exchanger inlets. If you don't have time to actually move the fan or you can't find a good place for it tonight, request you turn that fan off and then also turn the AM heat exchanger fans, three of them, to LOW. Over.

SPT Okay, if we do move the fan do we leave the heat exchanger fans on, right?

CC That's affirmative. And the next thing I have is, we're not real sure whether or not you're completely finished setting up the ATM for unattended ops, but if not, we show SO-54 FILTER in 1 vice 2. And also, we should be in the SOLAR INERTIAL mode vice EXPERIMENT POINTING.

SL-11 MC-267/1

Time: 21:51 CDT, 190:02:52 GMT

5/29/73

CC Another note is that we went through the voice record tapes and the - where you recorded a voice for the wardroom SMMD calibration - somehow or another that got garbled and we just couldn't read the tape well enough and if you get a chance we'd like for you to re-record a wardroom SMMD CAL data on channel B. While I'm on that - -

SPT

All of it!

CC

That's affirm. All of it.

SPT

Oh boy. How about if I bring the logs back in so that - okay. Let's see. On this business of going to SI for unattended ops, we decided earlier not to power down the experiment pointing loop. I haven't done the changes to the other unattended OPS pad we set up. And meanwhile we made up our own unattended OPS pad by deleting all those steps which powered down the EPC loop, one of which was going to SI.

CC

Roger, Joe. I'm told we're not asking you to power down the EPC loop, but by going to solar inertial it takes the power off. It's a power consideration and does remove power from a bunch of things that we don't want to power up during the evening.

SPT

Okay, well, undelete that stuff and I guess the filter 2 was per - per the pad. Was that right?

CC

That's affirm.

SPT

Okay.

CC

One other ATM (garble), we've noticed when sunset comes around that we can see the sunset on each on H-alpha. We thought the doors ought to close sooner than that so we make that comment. You can tell us if it's right.

CC

Okay, copy that Joe, and I made a mistake I think - that S054 filter is on the cue card not the pad, but at either rate for this evening put in I please. Also - -

SPT

In the filter, the cue card/pad or rather the cue card said storage and also says I which is very confusing so we picked storage.

SPT

Now you tell us what you really want.

CC

Okay, we want it in FILTER 1 tonight.

SPT

Can we - all right. Tell us tomorrow sometime what the cue card ought to say forever.

CC

Okay, Joe, I'm being educated here. We want you to put it in FILTER 1, confirm it's there and then go to STORAGE. And we've got about 30 seconds left in this pass, guys. One other comment on this voice record data - some of it has been garbled because of the classical music in the background in the wardroom and we sure don't want to - you know to get in the way of that but you might take that into consideration when you voice record on channel B. And the first pass in the morning will be about 5 or 10 minutes

SL-12 MC-467/3

Time: 21:52 CDT, 15002:52 GMT

5/20/73

after 6 o'clock local down here and on board that's right after crew wake-up, so have a very nice evening sleeping, and we'll see you tomorrow morning.

SPT

Goodnight all.

CC

Roger.

FAO

This is Skylab Control. Skylab space station crew has been tucked in for the evening. Wake-up time 6 a.m. central daylight. Next station pass for Skylab space station and the crew which likely will be asleep by that time, is an hour and 16 minutes away, Vanguard again. Ground track passes down through between Guam and Hawaii, misses all other stations until tracking ship Vanguard. After a rather busy day, first full day of gathering scientific data and medical experiment runs, the crew of Skylab has called it a day. At 03:00 Greenwich mean time, this is Skylab Control.

END OF TAPE

SL-11 NO-266/1

Time: 03:14 GMT 150:03:14 GMT

3/29/71

PAO This is Skylab Control, 03:14 Greenwich mean time. Skylab space station crossing over Iran, and northern Arabia at this time. About one-fourth of the way through revolution number 223. Following is the medical bulletin issued by Flight Surgeon Dr. Charles E. Ross, resulting from the medical conference held over Vanguard this past - late in revolution number 222. The Skylab crew remains in good physical condition and in high spirits. The heat load has not caused any notable problems. And the crew's hydration remains satisfactory. The science pilot stated that the crew seems to need only 3 to 6 hours of sleep nightly to feel rested. And that's the sum of the medical bulletin. Fifty-nine minutes until next Vanguard pass. And at 03:15 Greenwich mean time, this is Skylab Control.

END OF TAPE

SL-11 NO-269/1

Time: 13 14 CDT

150:04:14 UMT

5/29/77

PAO Skylab Control at 4 hours 14 minutes and 12 seconds, Greenwich mean time. We're approaching acquisition of signal at Vanguard in approximately 48 seconds. And at that time, we do not expect to hear from the crew. We may find out whether or not the crew is sleeping in the orbital workshop. They were scheduled earlier tonight to have been wearing the M133 sleep monitoring device, and to do that they must be in the orbital workshop. Medical personnel here do not know, they've got no definite information that that will be the case. We're coming up now on acquisition of signal, and should be receiving data at any moment. This is Skylab Control and we'll stay tuned for any possible discussion from the crew if they are awake.

PAO Skylab Control. We have acquisition of signal and about 9 minutes left in our pass over Vanguard. The data we're receiving from the temperature transducers in the orbital workshop indicates that those temperatures are coming down very slightly. About 0.3 of a degree over the last hour and a quarter on most of those sensors. Some of the sensors relatively stable. Only a slight reduction from this morning's temperatures. The lowest temperature in the orbital workshop area has been about 76.6 degrees. The highest temperature 87.6 degrees. And that's again in the experimental compartment ceiling, which has generally been the highest temperature over the last several days. Median temperature is about 82-1/2 degrees, and we still have acquisition of signal and we'll stay up for this 8-minute and 30-second pass.

PAO Skylab Control. That sleep monitor is registering data and indicating the sleep state is now at stage zero, which means that we now have operational data there, and we should be getting some information later from the medical personnel on what time they actually go to sleep. We have 6 minutes and 35 seconds left in our pass over Vanguard.

PAO Skylab Control at 4 hours 23 minutes 25 seconds Greenwich mean time. We still have acquisition of signal for another 2 minutes and 9 seconds at Vanguard. And the sleep monitor experiment is still giving us data, indicating now a sleep state stage 4, and we'll try and get you an interpretation of the various stages of sleep that come out on this data shortly after the pass is completed. There will be an edited replay of today's television from Skylab approximately 5 minutes, beginning exactly at 11:30 central daylight time. That's a little over 6 minutes from now. This is Skylab Control. We will stay alive for the remaining one minute and 35 seconds of this pass.

SL-11 MC 269/2

Time: 23:14 CDT 150:04:14 GMT

9/29/79

PAO Skylab Control at 4 hours and 26 minutes Greenwich mean time. We have lost signal and tracking data from the Vanguard station. We have approximately 2 minutes to the acquisition of signal at Ascension. And then we'll have another long period of loss of signal, almost 45 minutes. This is Skylab Control at 26 minutes 18 seconds, after the hour.

END OF TAPE

SL-II NC-270/1

Time: 23:37 CDT 150:04:37 GMT

9/29/73

PAO Skylab Control at 37 minutes and 13 seconds after 4 hours Greenwich mean time. At the present time we are receiving good data from the Ascension tracking station. The science pilot is showing a sleep state at stage 3 which is moderate to a deep sleep, and there will be fluctuation regularly in this data. He just in fact, fluctuated to stage 4, stage 4 is the deepest state of sleep, and he can be expected to vary from 3 to 4 and back up to 2. These are various depths of sleep. This would indicate that the science pilot, Dr. Joseph Kerwin, who is wearing the equipment right now is sleeping soundly, and it is assumed that the other two are with him in the orbital workshop sleep compartments, the first night they've spent in those sleep compartments. Temperatures are fairly stable tonight. They are expected to go down during the overnight period when there's less activity in the Skylab, and when both of the coolant loops are functioning at full tilt. That does help to bring down the temperatures and we have seen some fractional temperature decline in the last few hours. This is Skylab Control at 38 minutes and 27 seconds after the hour.

END OF TAPE